
Transportation Funding Task Force

# Transportation Solutions

## A Report on Michigan's Transportation Needs and Funding Alternatives

The Report of
The Michigan Transportation Funding Task Force

***Prepared for***
Governor Jennifer Granholm
and the Michigan Legislature

November 10, 2008
*(with technical corrections as of 12/4/08)*

# Transportation Funding Task Force

TF2

WORK ZONE AHEAD: PROCEED WITH VISION

November 10, 2008



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Speaker of the House
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Chairman Ted H. Wahby
Michigan State Transportation Commission
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Dear Governor Granholm, Majority Leader Bishop, Speaker Dillon, and Chairman Wahby:

We are pleased to transmit to you the Report of the Transportation Funding Task Force, as required by Public Act 221 of 2007.

As directed by the law, the Task Force closely examined the "*adequacy of surface transportation and aeronautics service provision and finance*" in Michigan. Our work assessing current and potential approaches to maximizing the effectiveness of existing resources and reviewing alternative strategies for financing infrastructure improvements was guided by a broader focus on supporting "*economic activity and personal mobility.*"

The Task Force received a great deal of assistance from the Citizens Advisory Committee, who identified and quantified Michigan's transportation needs, and compiled a thorough list of efficiencies, reforms, and best practices that might be employed to help offset the need for additional revenue. We could not have completed our work without their cooperation. The Task Force was also aided by the many passionate individuals who attended our meetings throughout the state to share their thoughts, ideas, and suggestions.

The Task Force has concluded that there are many things transportation agencies across the state are doing well – effectively utilizing available data, working cooperatively together, continuously seeking improvement, and sharing resources and equipment. Despite efforts to stretch limited taxpayer dollars as far as possible, the amount of funding available for investment in transportation is simply not sufficient.

Michigan is moving from underinvestment in transportation to disinvestment. The consequences of failing to act quickly and decisively to avoid this scenario will reverberate throughout the state for years to come.

We are grateful for being given the responsibility of looking closely at the challenges and opportunities facing our transportation system. We stand ready to assist you in any way as you consider the recommendations in our report and the actions necessary to move our great state forward.

Sincerely,

Rich Studley, Co-Chair

Dennis Gillow, Co-Chair

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## Transportation Funding Task Force Members

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# Executive Summary

The Transportation Funding Task Force was created in response to Public Act 221 of 2007 (P.A. 221 or Act 221), legislation which passed both the Michigan Senate and House of Representatives with a bipartisan majority and was signed into law by Governor Jennifer Granholm in December 2007.

The Task Force is comprised of 13 members. Nine represent interests including manufacturing, labor, transportation, agriculture, aviation, commerce, public transit, tourism, and the general public. Four members of the Legislature also serve on the Task Force, representing each legislative body and each side of the political aisle.

The purpose of the Task Force, as defined by P.A. 221, is to "review the adequacy of surface transportation and aeronautics service provision and finance" in Michigan, review strategies for maximizing return on transportation investment, and evaluate the potential of alternative strategies to replace or supplement transportation taxes and fees. A major and consistent focus of the group has been the need to stimulate economic activity and enhance personal mobility.

As they began their work seven months ago, the members of the Task Force very quickly realized the enormity and importance of the task that had been appointed to them.

**Hard Truths**

What the Task Force ultimately determined, after months of hard work and much public input, is that if Michigan's transportation system is to continue to serve the state adequately, our investment in transportation must increase significantly.

Road-user fees for a typical Michigan auto driver come to just pennies over $1 per day. The typical auto driver pays 2½ cents per each mile driven; a typical semi-truck driver, 8 1/3 cents. Michigan's Airport system has been sustained over the years with a fuel tax established in 1929, a rate sustainable because of aviation's popularity and growth. Transit investment in Michigan is half to one-tenth the investment made by other populated, economically diverse states like New York, New Jersey, Maryland, Illinois, Massachusetts, California, even Minnesota and Delaware. We pay relatively little for a transportation system that provides priceless access to global opportunity.

Compounding this historic underinvestment are factors beyond our control. Michigan is approaching a crisis of infrastructure funding caused by steady erosion of purchasing power, continued inflation in materials costs, and a decline in fuel-tax revenues due to spikes in gas prices, reduced travel and a slow economy. The decline in revenues, and a corresponding increase in demand for travel alternatives, has exposed the inherent structural problems with the current means of transportation finance.

For the past several years, the transportation revenue stream has been enhanced with bond revenues to provide a more robust level of investment. As a result, Michigan has made progress, particularly in improving the condition of the most highly used highways and bridges. But that bonding cannot continue without additional revenue.

As a result, Michigan is moving from underinvesting in transportation, to disinvesting in transportation.

That is the hard truth the Transportation Funding Task Force had to face. The group asked the Citizens Advisory Committee (CAC), also created by Act 221, to identify and quantify Michigan's

transportation needs, based on "do nothing," "good," and "better" investment scenarios. The Task Force reviewed their methodology, and asked them to propose efficiencies and reforms that could help stretch taxpayer dollars and maximize the benefit of existing investment.

Based on the information at their disposal, the Task Force could reach only one conclusion. More investment in transportation is absolutely needed. Much more.

**Greater Efficiency**

Properly chosen transportation investments can be phenomenally productive, but only if every dollar is used efficiently. With the assistance of the CAC, the Task Force learned that transportation agencies have been relentlessly vigilant in stretching shrinking revenue. Their efforts may go unnoticed, because cost-cutting measures are designed not to disrupt service or impose on customers. While the Task Force was able to recommend some additional efficiencies that are beyond the ability of any one transportation agency to implement, it is clear that efficiency is standard operating procedure at agencies across the state.

First among the efficiencies already achieved is Michigan's nationally-recognized focus on asset management, involving every road agency in the state. On a smaller scale, many transportation agencies work cooperatively with each other or the private sector to economize and avoid duplication. Savings range from grand improvements – like the technologically advanced region-wide snow and ice removal program in Southeast Michigan, the nation's first LEED certified, energy efficient transit center in Grand Rapids, or the recently completed 80,000 square foot hangar at Oscoda-Wurtsmith Airport which can fully house a Boeing 747-8 for maintenance operations during inclement weather and created 200 new jobs – to simple adjustments like multipurpose trucks or cooperative purchasing consortiums. But increasingly, transportation agencies must let some opportunities to save go undone, as cash is not available to make small improvements, however productive.

**No Federal Bailouts**

Given the current state of the national economy, it is unlikely the federal government will come to Michigan's transportation rescue. Even if they did, Michigan is not in a position to take advantage of new federal funding. *This is the last year Michigan will have enough state and local matching funds to claim all federal transportation funding available to the state.*

Some local agencies are already unable to make use of all federal transportation funding. By 2010, this will be true across all modes and across all jurisdictions.

We must increase investment in transportation soon or we will put past investment at risk, and the infrastructure and transportation service on which we rely will deteriorate.

**Abundant Choices**

The good news is that there is a way out of the transportation investment crisis.

In fact, there are many ways out. We have room to choose among many alternatives to pay for a basic "good" transportation system, but it is the consensus of the Task Force that in order to compete in a global economy as a state we need to continue to strive for "better" over time.

Although the level of investment needed for "good" and "better" are significant, they are not out of line with transportation investment needs nationally. The National Surface Transportation Policy and Revenue Study Committee, after two years of research and public comment, recommended that investment in transportation by all levels of government should be at least

$225 billion per year, an increase of 161 percent compared to national capital investment today of $86 billion.

In Michigan, we need to at least double our current investment in transportation.

Despite the magnitude of the funding gap, it can be closed. Not all the revenue need come from state coffers; the federal government, local government, and even the private sector should be partners in this effort. But one or two incremental fee increases will not be enough; it will require multiple – possibly dramatic – changes to the user-fee structure. Most of the revenue alternatives and efficiencies described in this report will likely be needed if we are to accomplish our goal.

The one choice we cannot afford is to do nothing.

The consequences to Michigan if action is not taken to address the need for increased transportation investment are dire indeed. Michigan stands to lose up to $1 billion in federal funds each year, because transportation agencies will not have enough revenue to provide the required matching funds. They will not be able to sustain the current level of investment, putting more than 17,000 jobs at risk. The condition of our infrastructure will deteriorate, with 30 percent of Michigan roads predicted to decline into poor or fair condition during the next decade. The condition of airport pavements will also decline, with the average airport pavement needing rehabilitation as soon as 2012, and crucial aviation safety programs will need to be terminated or reduced in scope. Existing local transit services and intercity passenger rail services will be reduced, and intercity bus service to rural areas will likely be eliminated.

**Real Opportunities**

Restoring our investment in transportation has the potential to accomplish valuable and much needed changes. The "good" level of investment will sustain 126,000 Michigan jobs, attract new business, open new global markets for Michigan products and services. It will yield roughly $41 billion in other economic benefits for all sectors of the Michigan economy.

For highways, roads and bridges, "good" investment will ensure that the most frequently used roads and bridges remain largely in good condition. It will allow local road agencies to do more than just plow snow and patch potholes, and will preserve local roads in the same condition they are today. It will reduce congestion with road widenings and construction of the highest-priority capacity improvements, and improve safety.

For passenger transportation, a "good" investment level will allow transit agencies to begin replacing aging buses with greener, more fuel-efficient vehicles. It will enhance convenience and choice in passenger transportation and allow implementation of long-overdue travel alternatives, such as commuter rail and light rail in Southeast Michigan and bus rapid transit in Grand Rapids. It will provide urban travel options that make Michigan cities more attractive to business and residents.

For freight transportation, "good" investment will reduce the travel time and increase the reliability of freight shipments on the ground and in the air. It will save lives by improving railroad-highway grade crossing safety.

For aviation, a "good" investment level will create an Aviation Economic Development Fund for aviation improvements needed to attract jobs. It will reinstate currently curtailed programs that are important to safety and that can provide new economic opportunities.

Good transportation will return benefits directly to households and businesses. It is estimated that congestion, poor pavement condition and crashes cost Michigan drivers and truckers $7 billion

annually in wasted fuel, lost time, vehicle maintenance costs, medical costs, lost productivity, and property damage. Based on economic analysis conducted by the University of Michigan, the Task Force estimates that investment at the "good" level would provide an average Michigan household an additional $2,000 per year in increased personal income and savings through reduced travel time and vehicle maintenance, and increased safety.

The "Better" investment level would accomplish even more. It would allow for infrastructure and transportation service improvements that would push Michigan into the forefront of economic competitiveness within our region and throughout the Nation. It would sustain more than 240,000 jobs, leverage an expected $1.9 billion in federal funds, and provide more than $84 billion in other economic benefits. The "better" level of investment is something to continue to strive for in the future.

**Working in the Snow**

The people of Michigan have been "working in the rain" for several years now, struggling with a sluggish state economy. To continue that analogy, the weather nationally has taken on a sharp and sudden chill. It seems inevitable that the rain will turn to snow. Perhaps severe snow.

But one of the many things the people of Michigan excel at is digging out from under a big snow. Everyone bundles up and pitches in. They bring whatever tools they have available. They all contribute, and make their best, most responsible effort to clear the way.

This report proposes making significant new investment in transportation. It is an investment that will create jobs and economic opportunity, attract business, improve property values, increase revenue, help the environment and ultimately save taxpayer dollars. It is an investment very worth making. In light of the storm that is upon us, it is an investment we cannot afford to forego.

This investment will require a contribution from everyone. It will require all the tools we have available, and some new ones that have yet to be crafted.

But if everyone contributes, if we work together to give our best, be our most responsible, we can make it happen. This significant investment in transportation can help Michigan dig out. We can set an example for the rest of the nation, show them how it's done, and reclaim our place as a national economic leader once again.

## Figure A: Summary of Transportation Investment Scenarios

| Investment Scenario | Aviation | Highway, Road & Bridge[1] | Intermodal Passenger | Intermodal Freight | Total Across Modes |
|---|---|---|---|---|---|
| **Do Nothing** | **$121M** | **$1,900M** | **$241M** | **$14M** | **$2,276M** |
| State & Local Funds | $16M | $1,653M | $193M | $7M[2] | $1,869M |
| Federal Funds Leveraged (avg per year) | $105M | $247M | $48M | $7M | $407M |
| Federal Funds at Risk (avg per year) | ($16M) | ($954M)[3] | ($112M) | ($0) | ($1,082M) |
| Jobs Lost[4] | (416) | (13,532) | (3,516) | (N/A)[5] | (17,464) |
| **Good** | **$242 M** | **$6,136M** | **$773M** | **$19M** | **$7,170M** |
| State & Local Funds | $79M | $4,935M | $508M | $12M | $5,534M |
| Federal Funds Leveraged (avg per year) | $163M* | $1,201M | $265M* | $7M | $1,636M |
| Jobs Supported | 3,800 | 87,000 | 35,100 | 250 | 126,150 |
| Other Benefits | Not Available | $37,000M | $4,369M | $31M | $41,400M |
| **Better** | **$327M** | **$12,696M** | **$1,336M** | **$41M** | **$14,400M** |
| State & Local Funds | $130M | $11,495M | $779M | $34M | $12,438M |
| Federal Funds Leveraged (avg per year) | $197M* | $1,201M | $557M* | $7M | $1,962M |
| Jobs Supported | 5,200 | 179,000 | 59,000 | 600 | 243,800 |
| Other Benefits | Not available | $76,200M | $7,449M | Not available | $83,649M |

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[1] *Current investment among road agencies is $3.2 Billion (FY 08), putting the current total across modes at $3.576 Billion. Doing nothing will result in a decrease in funds available for investment in highways, roads and bridges.*

[2] *This amount only reflects rail investment. Trucking and air cargo are in their respective columns. No other freight funds were identified.*

[3] *Estimates of federal aid are subject to change based on decisions made by the federal government.*

[4] *Aviation - One job is estimated to be supported for every $60,000 spent. This figure includes direct and indirect jobs from construction expenditures, but does not reflect additional jobs created by increased passenger or cargo traffic as a result (Adapted from economic benefits studies of Detroit Metro and Willow Run Airports). Highway, Road, and Bridge - One job is estimated to be supported for every $70,500 spent. (Adapted from U of M's Economic Benefits of MDOT's 2007–2011 Highway Program). Intermodal Passenger – One job is estimated to be supported for every $32,000 invested in capital for transit. (Adapted from Cambridge Systematics Study, E-1). Intermodal Freight – With no federal funds at risk, there will be no job loss.*

[5] *The investment scenarios for intermodal freight were not included. Only rail investments were identified by the CAC Intermodal Subcommittee. Air and truck-cargo investment needs were included with their respective infrastructure, and no specific marine cargo investments were identified. Rail infrastructure supports over 4,000 jobs in the state, however, there was not a comparable calculation identified to accurately identify "jobs supported" by the investment scenarios as was done for other modes.*

* *Federal funds leveraged includes possible competitive federal grants that could be available.*

## Figure B: Summary of Funding Alternatives (in order of time horizon)

Key: ● = High ◐ = Medium ◔ = Low

| Statewide Revenue Options | Guiding Principles: Workable short run | Sustainable long run | Participation at all levels | Relationship of payers/ benefits received | Adaptation to changing conditions | Retention for trans-portation purposes | Sufficient to leverage other funds |
|---|---|---|---|---|---|---|---|
| Increase vehicle registration rates | ● | ● | ◐ | ● | ● | ● | ◐ |
| Eliminate registration discounts | ● | ● | ◐ | ● | ● | ● | ◐ |
| Adjust motor fuel tax | ● | ◐ | ◐ | ● | ◐ | ● | ◐ |
| Equalize diesel & gasoline fuel tax rates | ● | ◐ | ◐ | ● | ◐ | ● | ◐ |
| Abolish 1.5% "cost of collection" allowance | ● | ◐ | ◐ | ◐ | ◐ | ● | ◐ |
| Reduce Inter-Departmental Grants | ◐ | ◐ | ● | ● | ◐ | ● | ◐ |
| Increase sales tax and dedicate increase to transportation funding | ◐ | ● | ● | ◐ | ● | ◐ | ● |
| Direct all or a portion of sales tax on fuels to the MTF | ◐ | ◐ | ◐ | ● | ◐ | ● | ◐ |
| Direct some (or all) of Natural Resources Trust Fund Revenue to roads | ◐ | ◐ | ◐ | ◐ | ◐ | ◐ | ◐ |
| **Aviation Options** | | | | | | | |
| Increase aviation fuel tax | ● | ◐ | ◐ | ● | ◐ | ◐ | ◐ |
| Increase aircraft registration fee | ● | ◐ | ◐ | ◐ | ◐ | ◐ | ◐ |
| Abolish commercial airline refund | ● | ◐ | ◐ | ◐ | ◐ | ◐ | ◐ |
| Urge increase in aviation block grant | ◐ | ● | ● | ● | ● | ◐ | ◐ |
| Redirect sales tax on aviation products or make a specific allocation to aviation from unallocated sales tax revenue | ◐ | ◐ | ● | ◐ | ● | ◐ | ● |
| Change aviation fuel tax to % of price | ◐ | ◐ | ◐ | ● | ● | ◐ | ● |
| Work with Congress to make reliever and super-reliever airports eligible for same federal funding as primary airports | ◐ | ● | ◐ | ● | ◐ | ◐ | ● |
| **Local Funding Options** | | | | | | | |
| Encourage local transportation investment by enabling a broad spectrum of local revenue options | ◐ | ◐ | ◐ | ● | ● | ● | ● |
| **Public-Private Partnerships (P3s)& Tolling** | | | | | | | |
| Enable P3s for toll-financed reconstruction, expansion or new construction of freeways. | ◐ | ● | ◐ | ● | ◐ | ● | ● |
| Enable toll-financed reconstruction, expansion or new construction of freeways. | ◐ | ● | ◔ | ● | ◐ | ● | ● |

# Section 1: Introduction

### Purpose of the TF2

Public Act 221 of 2007 created the Transportation Funding Task Force (Task Force) to examine alternatives to the fuel tax, analyze their feasibility, and suggest or recommend transportation revenue options, including revisions to the Act 51 formula, if necessary. Act 51 stipulates the distribution of state transportation revenue to the various agencies that have responsibility for roads and bridges, and sets aside a portion of that revenue for transit.

The Task Force is comprised of 13 members. Nine members represent a broad spectrum of interests including manufacturing, labor, transportation, agriculture, aviation, commerce, public transit, tourism and the general public. Four members of the Legislature also serve on the Task Force, representing each house and each political party. Task Force members diligently made room in their busy schedules to attend meetings, and gave careful, thoughtful, and thorough consideration to the issues discussed.

The overarching purpose of the Task Force, as defined by P.A. 221, is to "review the adequacy of surface transportation and aeronautics service provision and finance" in Michigan. Strategies for maximizing return on transportation investment were considered and alternative strategies were evaluated on their potential of to replace or supplement current transportation taxes and fees. A major and consistent focus of the group has been the need to support economic activity and personal mobility.

The bill also created a Citizens Advisory Committee (CAC) to assist the Task Force in this effort. The CAC consists of 19 individuals appointed by Governor Granholm and includes transportation experts for nearly all travel modes, as well as representatives from local government and major economic sectors. The CAC and its technical subcommittees contributed significantly to the work of the Task Force by analyzing transportation needs, as well as recommending efficiencies that could be implemented to help address those needs.

The CAC subcommittee reports submitted to the Task Force are available by clicking "View Final Report" at www.michigan.gov/tf2.

### TF2 Work Program

The Task Force has met at least once a month since March 2008, according to the work program developed by the Michigan Department of Transportation (MDOT). Meetings have been held in cities across the state and have covered the following material:

- March 7, Lansing – Introductory meeting
- April 21, Grand Rapids – State and Federal transportation funding
- May 19, Livonia – Trends impacting transportation
- June 30, Lansing – Presentations on aviation, freight logistics, local funding options
- July 21, Traverse City – Transportation needs presented by the CAC
- August 11, Frankenmuth – Working session on transportation needs
- September 8, Lansing – Aviation, local options, and public-private partnerships
- September 29, Marquette – State funding alternatives
- October 13, Roscommon – Preliminary recommendations for efficiencies
- October 27, Lansing – Finalize Preliminary Report

Opportunities for public comment were provided several times at every meeting, and many members of the public took advantage of those opportunities to share their views. Presentations were also made by a wide variety of stakeholders, transportation providers, and MDOT staff. The presentations were designed to inform the members of the Task Force of the intricacies of transportation funding, and the importance of the transportation network to the economy and Michigan's quality of life.

A Web site was established for those who wished to stay abreast of the Task Force's actions and to offer comments electronically. A complete list of those who provided public comment or information to the Task Force is accessible by clicking "View Final Report" at www.michigan.gov/tf2.

**Revenue Alternatives**

The Task Force took on their appointed task of identifying revenue alternatives that could help achieve the "good" level of investment, assuming this could be accomplished through a phased approach. Over the course of several meetings, the group considered and prioritized an ambitious series of revenue alternatives for all modes of transportation.

This preliminary report describes the funding alternatives identified by the Task Force, as well as the transportation needs they will address. In keeping with the requirements of P.A. 221, it also provides current and historical funding information, a description of the infrastructure and service provided, along with the current and historical use of the various transportation modes.

## Section 2: Guiding Principles

The Task Force agreed to a set of guiding principles to help evaluate the many options and strategies for future funding that could be applied. They chose to focus on investment alternatives that:

**Are workable in the short run and sustainable in the long run.**
The Task Force recognized that some recommendations are easier to accomplish than others, but a shift away from a long-standing revenue instrument, such as a motor fuel tax, could require a more complicated solution. For that reason, the group included some recommendations that could be accomplished immediately, some that could be accomplished in a shorter term of two to three years, and some that might take more than three years to implement, but hold the genuine promise of a viable alternative to motor fuel taxes.

**Encourage broad participation.**
Everyone in society benefits from a reliable transportation system – every person, every institution, every business – and everyone should share in the cost of maintaining such a system. If fees for transportation users in one mode are adjusted, there should be comparable adjustments to user fees in other modes as well.

**Retain the relationship between users and benefits.**
The advantage of motor fuel taxes and fees has always been their ease of collection and the clear relationship between those who use the system and those who pay for the system. The Task Force sought recommendations that retained that relationship.

**Offer a diverse array of options.**
While the motor fuel tax may continue to be viable in the short term, in its current form it is not reliable enough in the long term to sustain a system as important as our transportation network. For that reason, and because of the large need for investment, a diverse array of funding options is necessary.

**Allow revenues to keep pace with inflation.**
The chief problem with motor fuel taxes presently is that they do not keep pace with inflation because of the long periods that elapse between increases in the tax. This problem has been exacerbated by the recent spike in gasoline prices, which drove down consumption of gasoline – and transportation revenue – while simultaneously causing dramatic increases in the cost of transportation service and construction. The result has been a serious gap in transportation funding. A funding mechanism that will naturally increase with inflation is the best hedge against future transportation funding gaps.

**Keep transportation revenue for transportation purposes.**
Particularly during the kind of lean budget years that Michigan has experienced recently, transportation revenues are a very tempting target for appropriators seeking additional revenue for other programs or services. Transportation is too important to the continued economic growth and progress of this state to allow the redirection of limited transportation funding. The writers of the state Constitution understood this when they included language in Article IX, Section 9 that requires that revenue generated by transportation fees and taxes should be used for transportation purposes. The Task Force takes this provision, and the need to use revenue generated by transportation users for transportation improvements, very seriously.

**Provide incentives for regional coordination and cooperation.**
Michigan's transportation network is vast and complex, but where regional transportation entities are able to save resources, cooperation should be encouraged. Out of necessity for many small local units of government, much is already being done to reduce costs by sharing vehicles and coordinating purchases. It is this type of effort that should be identified and rewarded to further encourage this level of cooperation.

**Capture all available federal transportation funding.**
Michigan is in danger of losing federal aid. Some agencies are already unable to provide sufficient matching funds to capture all available federal aid. By 2010, Michigan stands to lose $1 billion per year in federal funds because of a lack of sufficient state and local matching dollars. Action must be taken to ensure that this does not happen.

**Leverage revenue from other sources, including the private sector.**
Many other states are already attracting private investment in transportation infrastructure and services. Michigan needs to put these resources to work as well if we hope to accomplish the state's transportation goals. Enabling legislation will be needed in order to provide the full range of financial tools to transportation agencies to ensure financial participation by the private sector in the provision of transportation infrastructure and services.

# Section 3: Investment Needs by Mode

### Guide for Needs Analysis

Where appropriate, the CAC used the recently completed State Long-Range Transportation Plan, MI Transportation Plan: Moving Michigan Forward (MITP), as a preliminary guide for their needs analysis. The MITP is a federally-required document, the product of nearly three years of effort to identify trends that impact transportation. It defines a vision for transportation, establishes goals, and suggests strategies to achieve those goals for the state trunkline, aviation, and public transportation systems. The general public and transportation customers were very much involved in the process of compiling this document.

### Investment Options

As requested by the Task Force, the CAC subcommittees analyzed needed investment for each mode of transportation: Aviation; Highway, Road, and Bridge; Intermodal Freight; and Intermodal Passenger. The Task Force asked the subcommittees to identify investment options at various levels, including "do nothing," "good," "better," and "best."

The CAC focused their efforts on the outcomes of "do nothing," "good," and "better" levels of investment, feeling that the subjective nature of "best" would make it too difficult to quantify and that the items included at such an investment level might tend more toward "wants" than real transportation needs.

The Task Force, at its August meeting, unanimously concluded that the "do nothing" approach to Michigan's transportation needs is not an option, as the economic and financial impacts, as well as the anticipated deterioration in service, would be disastrous. Doing nothing to remedy the current financial crisis puts Michigan in the position of being unable to match up to $1 billion a year in federal aid for transit, highways, and aviation starting as soon as 2010. Losing out on this federal aid would cost Michigan an estimated 17,000 jobs, further undermining the state's economy.

The following sections of this document are summaries of the CAC subcommittee reports as submitted to the Task Force on July 21, 2008. Each modal report, plus a complete description of the methodologies used to develop the needs estimates for each mode, is available by clicking "View Final Report" at www.michigan.gov/tf2.

## *Section A - Aviation*

Most Michigan residents know of, and have relied on, commercial air travel for business and recreation. Equally important is the general aviation sector of the industry, which serves cargo, business, and private aircraft at the commercial and non-commercial airports in Michigan.

Airports, for both general aviation and commercial service, are critical to business, industry, and the public at large and have the potential to drive business location and commercial development in the 21st century as did highways in the 20th century. Taking the initiative to secure funding for this vital mode of transportation will ensure reliable, safe, and efficient transportation opportunities not only throughout Michigan but worldwide.

Aviation, both commercial and general, is big business in Michigan:

- Aviation contributes more than $20 billion annually to the Michigan economy
- Michigan airports serve 50 million passengers each year
- Michigan airports move one billion pounds of air cargo each year
- More than 1,000 Michigan companies, employing one million people, operate their own aircraft
- Michigan ranks 5th nationwide in the number of registered business aircraft
- Business aviation is the fastest growing segment of the general aviation industry and comprises 85 percent of general aviation activity

Airports accommodate a wide variety of aviation activities that provide direct and indirect public benefit. In addition to the obvious role of accommodating airlines and the services they provide, airports also function as community gateways. These gateways provide access to a wide variety of aeronautical operations including:

***Business Travel:*** Local airports allow corporate aircraft easy access to nearly every corner of Michigan. This provides a flexible, time-saving alternative to scheduled airlines. Business travel has become increasingly popular given the more stringent and time-consuming security screening process required for airline travel. In fact, an estimated 65 percent of non-airline operations are now attributable to business travel.

***Law Enforcement:*** Airports provide a fueling and staging point for law enforcement aircraft that conduct surveillance, traffic patrol, and search & rescue.

***Aeromedical Use:*** Perhaps nothing is more time critical than emergency medical care. Airports afford local residents immediate transportation options during the "golden hour" after a medical emergency. Aeromedical flights also facilitate rapid transport of life-saving organ donations.

***Agricultural Operations:*** The importance of agricultural aviation is staggering. More than 300 million acres of crop land is treated each year using aircraft. Nearly 95 percent of the U.S. rice crop is planted by aerial applicator aircraft and 65 percent of all commercially applied crop protection is performed by agricultural pilots.[6]

***Economic Development:*** Availability of a local airport is often one of the first criteria considered as companies look to site manufacturing or other corporate facilities. The job creation potential is significant. This is particularly true considering spin-off development such as hotels, restaurants, rental car companies, and retail.

***Air Cargo:*** In this modern world, citizens are experiencing an increased reliance on Internet and catalog commerce. Consumer demand has skyrocketed for a variety of perishable foods and commodities. As a result, air cargo has become an essential element in the transportation chain. Small community airports throughout Michigan provide a vital link to national and international cargo hubs.

***Emergency Response:*** Natural or man made disasters may wreak havoc on transportation infrastructure. Usually, reopening an airport is the first priority when addressing disaster relief needs as this reopens a direct, nation-wide link for first responders.

As outlined above, many public benefits are realized with a vibrant, well-developed airport system. Therefore, we must recognize the importance of investing in Michigan's aviation infrastructure to maximize the benefits enjoyed by all Michigan residents.

## Infrastructure and Service Provided

Michigan relies on a comprehensive aviation system that includes:

- 17 Commercial Airports
- 30 Scheduled Airlines
- 235 Public-use Airports
- 18,600 Active Pilots
- 7,800 Registered Aircraft
- 6 Aircraft Manufacturers
- 31 Repair Stations
- 6 Military Aviation Facilities

Through the Federal Airport Improvement Program (AIP), the state administers funds used for capital projects at the 78 highest-priority airports, as determined by the 2008 Michigan Aviation System Plan (MASP). Capital projects include runway construction and rehabilitation, airport lighting, terminal construction, and land acquisition. Aviation safety requirements have also been addressed through the Airport Safety and Protection Bond Program (ASAP), which was authorized from FY 2002-2007, although bond payments for this program will continue until 2031.

In addition to the AIP and ASAP, there are a number of state and local programs designed to address Michigan's aviation needs that have been suspended or curtailed due to lack of funds. These programs include:

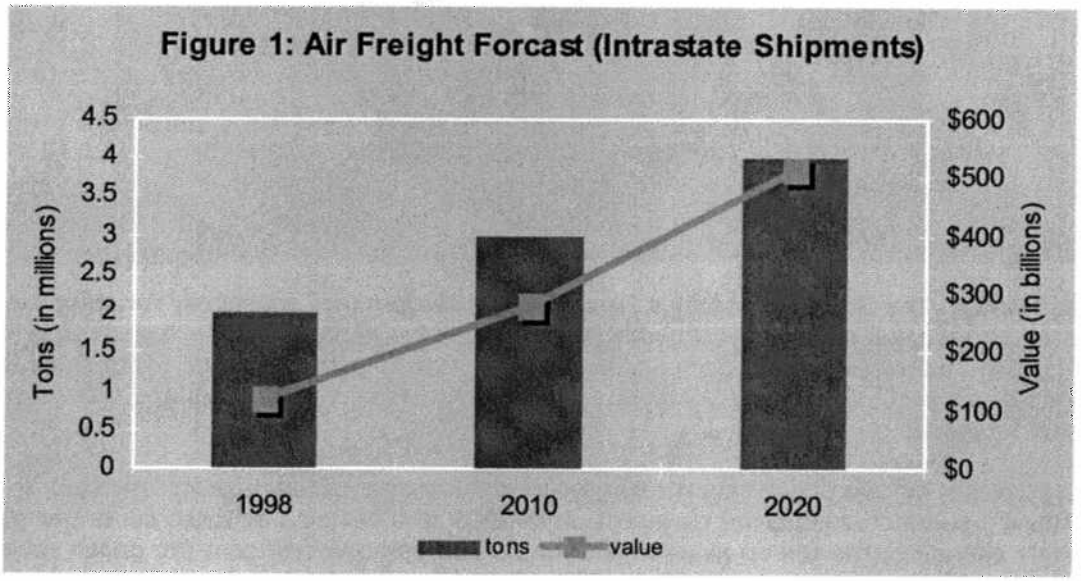
- All Weather Airport Access Program that helps provide safe access to airports through automated weather reporting
- Airport Rescue and Fire Fighting Training Program created to train emergency responders
- Airport Inspection Program used to ensure appropriate airport safety and practices
- Air Service Program intended to recruit and retain airline services

The airline system provides scheduled passenger services at 17 commercial service airports. In 2006, approximately 56 million passengers used Michigan airports, including 40 million airline passengers and roughly 16 million general aviation passengers. The majority of these airports are served by regional airlines such as Mesaba and Great Lakes, which provide connecting service. This service provides connections to major airlines operating at

large airports where access to the global airline transportation system is available. These regional air carriers typically operate 19- to 34-seat aircraft, which are better suited to smaller markets. The increasing use of regional jet aircraft, such as those used by Pinnacle, American Eagle, and other airlines, serve mid-sized regional airports and have a seating capacity of 50 to 90 seats.

Several airline operators provide on-demand or "charter" passenger and cargo transportation at various locations throughout Michigan. These services are available at any of Michigan's public-use airports and may be accomplished with a variety of aircraft designed to suit passenger or shipper needs.

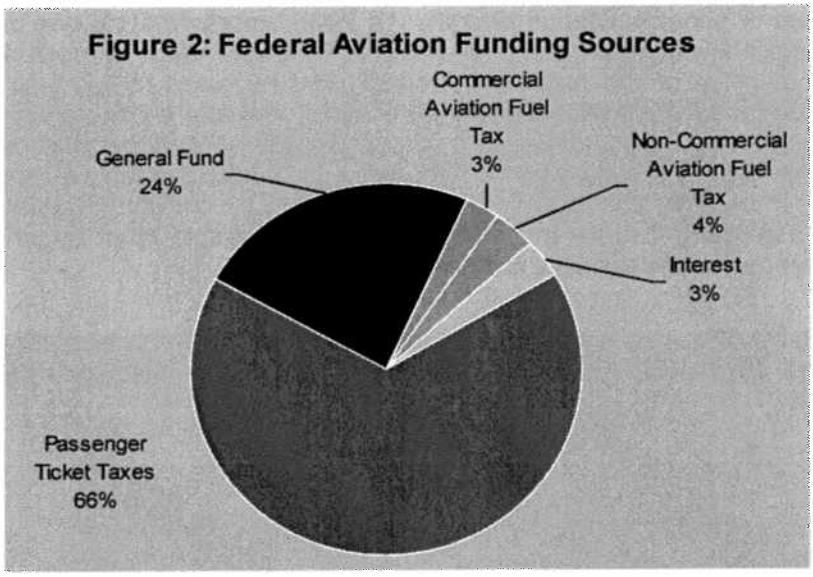
Air cargo moves via the cargo compartments of passenger aircraft, cargo-specific carriers, and certain types of general aviation aircraft. In 2006, approximately one billion pounds of air cargo moved via Michigan's airport system. Air freight tonnage is much smaller than for other modes, but value of the cargo is quite high and expected to increase (Figure 1). Air cargo includes all types of goods including auto parts, flowers, produce, seafood, computer parts, U.S. mail, as well as commercial package expediting services such as UPS, FedEx, and others. As online purchasing continues to grow in popularity, the air cargo industry will play a vital role in meeting consumer demand. Air cargo service providers at Detroit Willow Run Airport and Oakland County International Airport (Pontiac) offer cargo services where scheduled passenger airline services are not available.



## Current Funding and Funding History

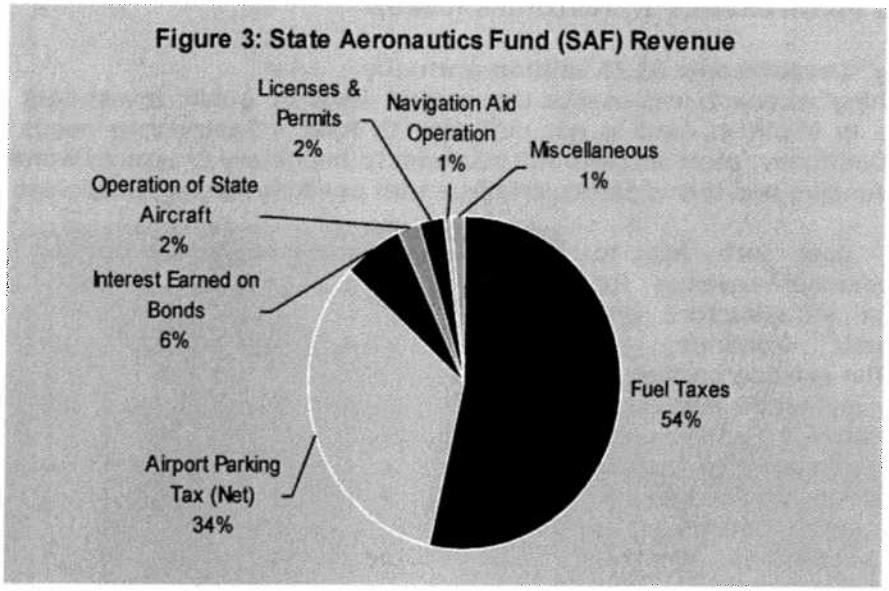
It is notable, when comparing the federal and state funding breakdowns, that approximately 25 percent of federal airport funding is generated from General Fund sources, an acknowledgement of the public benefit attributable to aviation and airports. This is not the case with state funding, however.

**Federal Funds.** Federal funding, derived from the Airport and Airway Trust Fund (AATF), is the primary funding source for airport capital projects. The AATF is derived from passenger ticket taxes, cargo taxes, commercial aviation fuel taxes, and non-commercial aviation fuel tax General Fund revenue (Figure 2).



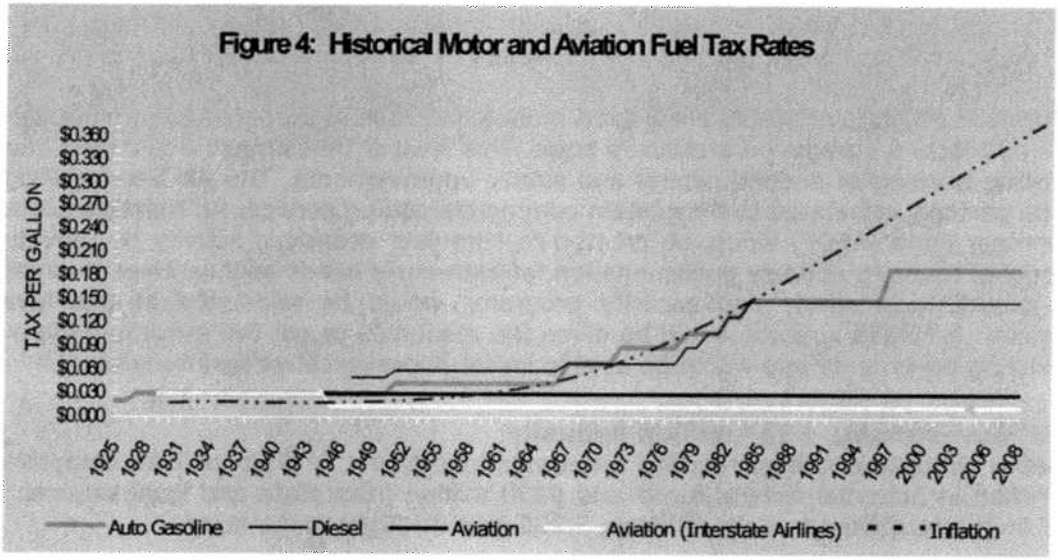

**State Funds.** The State Aeronautics Fund (SAF) is the primary repository for state aviation revenue and is used in conjunction with local revenue to match available federal aid (Figure 3). The SAF receives revenue from license, permit, and registration fees. State sales tax at the rate of six percent of the retail price is levied on sales of aviation fuel and other aircraft-related purchases.

The excise tax on aviation fuel is the single greatest source of revenue for the SAF. The tax has never been increased since its inception in 1929 and remains at three cents per gallon. The only change to the tax on aviation fuel was a one and one-half cent per gallon rebate to interstate airlines instituted with P.A. 327 of 1945, as indicated by the dark blue line (Interstate Airlines) on Figure 4.




**Funding Outlook.** Addressing aviation infrastructure and program needs creates many of the same challenges faced by other modes of travel. Cost increases for construction material have far outpaced the overall inflation rate. The asphalt and concrete used to construct runways and adjoining pavement cost far more now than it did just five short years ago. The Bureau of Labor Statistics Producer Price Index for highway and street construction has increased by more than 54 percent since 2003. Over the same period, the Consumer Price Index has risen by less than a third of that amount – only 15.4 percent.

While construction costs have increase dramatically, revenues have not kept pace. The result has been a stagnation of aviation revenue over the past two decades (Figure 4). Finding a solution to this funding crisis is of vital importance. In order to maintain an adequate airport system for Michigan residents and business interests, we must secure a stable revenue source to maintain investment in our aviation infrastructure.



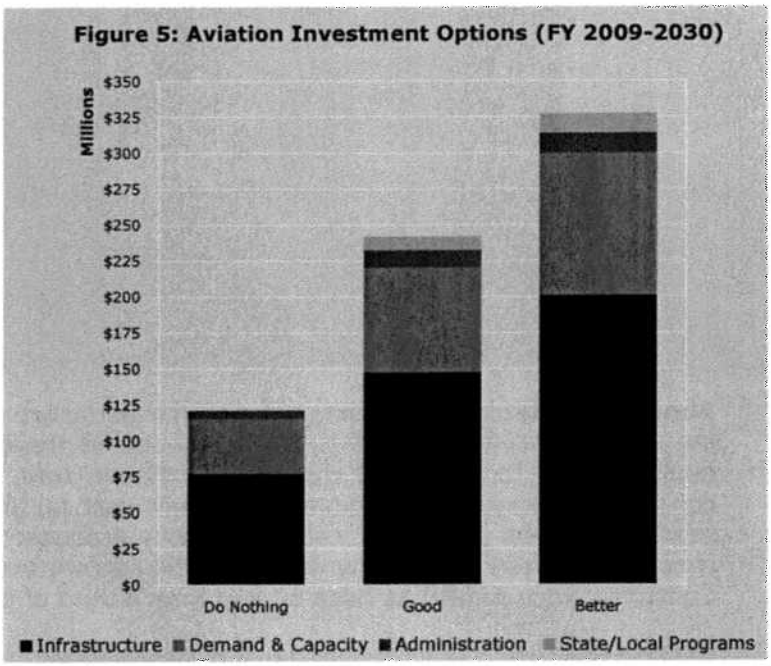
## Capital and Maintenance Investment Needs

### "Do Nothing" Investment: $121 million annually

The "do nothing" scenario represents the current level of public investment in aviation infrastructure in Michigan, and is not sufficient to fund infrastructure needs adequately (Figure 5). Eventually, some airports will succumb to budgetary pressures worsened by the lack of state funding and this is particularly true with privately-owned, public-use airports.

If Michigan does not act to generate additional revenue for aviation, vital infrastructure and services will continue to deteriorate. The existing backlog of capital needs will not be addressed and an estimated $16 million per year in federal dollars from capital programs will go unmatched. In addition, safety needs, as addressed by the All Weather Access, Airport Inspection, and Approach Marking programs will go unmet. Continuing to under fund initiatives such as the Air Service Program will potentially contribute to the cessation of commercial airline service at some air carrier airports, which could further damage Michigan's already struggling economy.

**Figure 5: Aviation Investment Options (FY 2009-2030)**




### "Good" Investment: $242 million annually

The "good" investment level for aviation essentially doubles the investment in aviation infrastructure. Additional investment from state and local sources of $63 million per year could leverage a total of $163 million in federal funds to achieve this investment level, should the federal funds be made available. Any additional state investment not used to match federal funds would be used directly for investment in airport infrastructure and safety programs. This investment has the potential to create or retain 3,800 jobs per year.

A "good" investment level would allow for a modest increase in funding and a reinstatement of state and local programs on a reduced scale. This level of investment would help address the existing backlog of needed capital and safety improvements. The Air Service Program would be partially reinstated to help retain commercial airline service. An Aviation Economic Development Fund (AEDF) would be created to stimulate economic activity by providing a small pool of funds to address public aviation infrastructure needs as incentives to create or retain jobs. Critical safety and security programs would be reinstated at this level of investment. Michigan airports would be given the resources to get the maximum life out of their existing pavements and would be able to invest in preventative maintenance.

### "Better" Investment: $327 million annually

The "better" investment level requires an annual investment of $327 million, comprised of $197 million in potential federal funds and $130 million from state and local sources. This level of investment would create or retain 5,200 jobs throughout the state.

With a "better" investment level, all backlogged maintenance, repair, and new capital needs would be met as outlined in the 2008 MASP. Funds for capital projects would also be available, including intermodal connectivity, precision instrument approaches, and general aviation terminals. Investment in curtailed state and local programs, such as All Weather Access and Airport Rescue and Fire Fighting Training, would be reinstated and maintained at an acceptable level. This investment level would allow the state to be much more proactive in the asset management approach to airport pavement preservation, as well as train emergency personnel, promote safety, and recruit and retain commercial airline service.

## *Section B - Highways, Roads, and Bridges*

No other element of Michigan's transportation system impacts as many people as highways, roads, and bridges, which makes a well-maintained and efficient road system the essential backbone of Michigan's economy.

Investment in this element provides innumerable benefits economically in travel time savings and personal cost savings. Increased investment also ensures the greatest level of safety on this vital piece of infrastructure. A 2007 University of Michigan study, which evaluated MDOT's annual investment in transportation and the benefits of MDOT's Five-Year Highway Program, anticipated those investments would:

- Generate personal travel-time savings between $28.3 to $69.2 million per year from 2007 to 2011
- Create business savings worth $18.9 to $47.6 million per year
- Create 23,034 jobs
- Increase Gross State Product by $1.4 billion in 2007

An efficient transportation system costs money, but a poor quality road and bridge infrastructure costs even more. Studies conducted by the Texas Transportation Institute conclude that deteriorating and increasingly congested roads have significant financial impacts; Poor roads cost Michigan drivers $7 billion annually due to crashes, vehicle maintenance costs, lost time, and wasted fuel.

It is widely recognized that Michigan's roads are in need of improvement. A nationally publicized report found that Michigan:

- has the 8th worst road system based on overall performance
- is 16th in the nation based on the number of deficient bridges
- has the 4th worst rural interstate conditions
- has the 8th worst urban interstate conditions
- is 8th in congested roads in urbanized areas[7]

In another example, a 2007 survey of the nation's truckers concluded that Michigan has the third worst road conditions in the nation.[8] Michigan was once a leader in transportation innovations – including the nation's first superhighway - and can be again by refocusing its priorities back into the infrastructure that the state's current economic foundation was built upon.

### Infrastructure and Service Provided

In Michigan, there are three levels of road jurisdiction: state roads, under the jurisdiction of MDOT; county roads, under the jurisdiction of county road commissions (or the county Department of Public Services in the case of Wayne County); and city/village streets, under the jurisdiction of the local municipalities. By law, Michigan's townships do not have jurisdiction over roads (all roads in townships are either county roads or state highways). Figure 6 reveals the size of each system and the amount of traffic each carries.

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*7 The Reason Foundation's 2007 Annual Report on the Performance of State Highway Systems*
*8 Overdrive Magazine's 2007 Highway Report Card Survey*

It should be noted that Michigan has the eighth largest public road system in the nation, the sixth largest local road system, the fourth largest county road system, and the 28th largest state highway system.

**Roads.** Although the state trunkline system accounts for only 8.1 percent of centerline miles, it accommodates more than half the travel on Michigan roadways. County roads account for 30.8 percent and city and village streets another 18.2 percent (Figure 6).

**Figure 6: Distribution of the Highway, Road, and Bridge System**

| Agency | No. of Agencies | Centerline Road Miles | % of all MI roads | # of Bridges | % of all Bridges | Vehicle Miles of Travel (VMT) | VMT (% of system) |
|---|---|---|---|---|---|---|---|
| State | 1 | 9,695 | 8.1% | 4,414 | 40.8% | 52.6 B | 51.0% |
| County | 83 | 88,961 | 74.4% | 5,611 | 51.9% | 31.7 B | 30.8% |
| Municipal | 533 | 20,914 | 17.5% | 792 | 7.3% | 18.8 B | 18.2% |
| Total | 617 | 119,570 | 100% | 10,817 | 100% | 103.1 B | 100% |

Michigan's Asset Management Council (MAMC), established in 2002, advises the State Transportation Commission on the condition of Michigan's highway assets. The MAMC projects that in 2015, due to reduced funding and the effect of inflation, only 70 percent of the state's federal-aid-eligible roads will be in good or fair condition - down from 85 percent in 2006 (Figure 7). Also by 2015, at current funding levels, 23,000 miles of road lanes will need rehabilitation or reconstruction on the federal-aid-eligible network alone.

**Figure 7: Condition of Federal-Aid Eligible Roads in 2007**

| Condition | Improvement Needed | Lane Miles | Percent | Change from 2004 |
|---|---|---|---|---|
| Good | Routine Maintenance | 19,751 | 24% | -14% (Good & Fair) |
| Fair | Preventive Maintenance | 43,222 | 51% | |
| Poor | Structural Improvement | 21,581 | 25% | +88% |
| | TOTAL | 84,554 | 100% | |

**Bridges.** Overall bridge conditions are determined by the National Bridge Inventory (NBI) condition ratings for major structural elements, including deck, superstructure, and substructure. According to the NBI, most of Michigan's bridges are in fair or good condition at this time (Figure 8). Federal law requires that bridges be inspected and rated at least once every two years.

| Figure 8: 2008 Bridge Conditions on the Federal-Aid System (Arterials and Collectors Only) | | | |
|---|---|---|---|
| **Condition (as of Oct. 9, 2008)** | **Number of Bridges** | **% of Total** | **Change from 2003** |
| Good | 4,615 | 69% | -3% |
| Functionally Obsolete (FO) | 1,177 | 18% | +2% |
| Structurally Deficient (SD) | 903 | 13% | -2% |

Bridges can be rated as functionally obsolete, structurally deficient, or in good condition. A functionally obsolete bridge is not necessarily in poor condition, but has width or height clearances below current design standards for the volume of traffic being served. A structurally deficient bridge has a condition rating of poor or worse, and while they generally are safe to drive on or under, they require attention. The majority of Michigan's bridges are classified in good condition, but the 31 percent of bridges that are rated as functionally obsolete or structurally deficient is unacceptable.

## Current Funding and Funding History

Michigan's road system is funded from three main sources of revenue: federal, state, and local (Figure 9). For FY 2006-07 these sources generated a total of $3.4 billion for the Michigan Transportation Fund (MTF). Bonding and tolls are responsible for smaller portions of the MTF revenue and are allocated to specific programs or infrastructure.

| Figure 9: MTF Revenue Sources | | |
|---|---|---|
| | **Revenue** | **Percent** |
| State funds | $2,225 million | 64.6% |
| Federal Funds | $1,169 million | 34.0% |
| Local Funds[9] | $47.5 million | 1.4% |
| Total Road Funds | $3,440 million | 100% |

**Federal funds.** Federal transportation funds for highways are primarily generated by the federal gas tax of 18.4 cents per gallon. Funds are distributed to the fifty states and some territories through a variety of transportation program categories, all of which have clearly defined regulations for the use of the funds. The funds are authorized and their distribution defined by multi-year federal legislation.

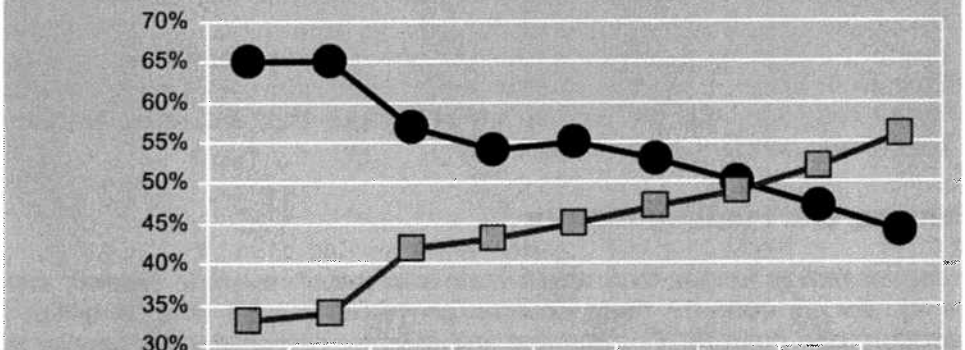
The current transportation funding legislation, SAFETEA-LU (Safe, Accountable, Flexible, Efficient, Transportation Equity Act – A Legacy for Users) is scheduled to expire in 2009.

[9] *The "local funds" number represents only the funds generated locally and used on the MDOT system. It does not include funds raised locally and used on either city/village streets or county roads.*

Michigan is a federal funding "donor" state, because it has historically received less in federal funds than it collects through federal fuel taxes. SAFETEA-LU was one of a series of federal highway authorization bills that helped address that disparity for the distribution of highway funds, bringing Michigan's rate up to a 92 percent return on its federal funds collected for highways.

**State funds.** State funds for highway investment come chiefly from vehicle registration fees and motor fuel taxes, which includes the state's 19-cent per gallon gasoline tax and 15-cent per gallon diesel fuel tax (Figure 10). As of 2008, motor fuel taxes account for more than half of all state-generated transportation revenue, but that number is slipping due to reduced fuel consumption.

**Figure 10: Mix of Fuel Tax and Registration Revenue in MTF (at current rates)**




| | 1982 | 1987 | 1992 | 1997 | 2002 | 2007 | 2012 | 2017 | 2022 |
|---|---|---|---|---|---|---|---|---|---|
| Fuel Tax | 65% | 65% | 57% | 54% | 55% | 53% | 50% | 47% | 44% |
| Registration | 33% | 34% | 42% | 43% | 45% | 47% | 49% | 52% | 56% |

Funds generated by state fuel taxes and registration fees are protected by the Michigan Constitution; all such revenues must be spent on transportation related activity. The Constitution specifies that at least 90 percent of the funds must be spent on roads. The remainder may be spent on public transportation.

Between 1996 and 2007, over $2.3 billion in state bond proceeds were used for the Highway Capital Program, particularly on the Build Michigan Program, Preserve First Program, and Jobs Today Program. These borrowing initiatives supplemented federal and state revenue to support improvements to MDOT's trunkline system and also some local road projects.

Tolls are used to fund a small but vital portion of the state's transportation system, Michigan's major bridges and border crossings. The Mackinac Bridge, Blue Water Bridge, and International Bridge are all funded with toll revenue. The Ambassador Bridge, a privately owned border crossing facility, also charges tolls, as do several ferry operations in Michigan.

**Local funds.** Local units of government, such as counties, cities/villages, and townships, participate in the cost of construction and reconstruction of roads. They also often participate in the cost of improvements within their boundaries on state trunklines and

county roads. These funds are typically generated through a local, dedicated property tax millage, or through contributions from the entity's general fund.

**Funding Outlook.** When fuel prices rise and as the state's economy continues to struggle, travel on Michigan roads has decreased, and fuel tax revenue has decreased as well. The improved fuel efficiency of motor vehicles exacerbates the problem. Growing construction costs - again due largely to rising fuel prices - and material costs erode the buying power of fuel tax revenue.

MDOT has used bonding in the past to sustain the highway program and improve state trunkline infrastructure, but that approach can no longer continue, as annual debt service on the bonds is very near the 25 percent maximum approved by the State Transportation Commission.

Due to the decline of revenues from fuel taxes, the importance of vehicle registration taxes is increasing. Revenue from vehicle registration taxes is projected to surpass the revenue from fuel taxes in 2012 (Figure 10). At both the state and federal level, there is increasing recognition that the gas tax, in its current form, is becoming a less reliable source of revenue for transportation projects than it has been in the past.

## Capital and Maintenance Investment Needs

### "Do Nothing" Investment: $1.9 billion annually

Under a "do nothing" investment scenario for highways, roads, and bridges, Michigan's future investment will be considerably less than the $3.2 billion invested in 2008, and the state can expect to lose more than 13,000 jobs as a result. The financial and practical impacts of this inadequate level of investment are so profound that this is clearly not an option for Michigan.

For starters, without additional state funds, Michigan will be unable to match up to $1 billion per year in federal aid (Figure 11). The state trunkline system will deteriorate from today's 90 percent in good condition to about 65 percent in good condition by 2015; the local road system and local bridge condition are expected to deteriorate even more quickly. Current safety and operational programs will not have sufficient funds to continue in their current form. There will be no funds available to increase highway capacity at the state or local level, except for environmental or real estate work on a handful of ongoing projects. Maintenance work, such as snowplowing and pothole patching, will continue, but funds could run short, as they did in 2008 at both the state and local level.

### "Good" Investment: $6.1 billion annually

The "good" investment level essentially doubles current investment in highways, roads, and bridges. It would allow Michigan to continue to match current federal funding of $1 billion each year to leverage an additional $1.2 billion annually. It would retain more than 13,000 jobs and create more than 74,000 additional jobs. Finally, because every dollar invested in transportation results in $5 to $6 in direct and indirect economic benefits, the "good" investment level would generate between $31 and $37 billion in economic benefits.

The "good" level of investment is deemed the minimum necessary for Michigan to keep people and goods moving. It would allow the state to match anticipated federal aid, and would preserve 85 percent of state trunkline pavements and 90 percent of state trunkline bridges in good condition. At the local level, it would be sufficient to allow resurfacing,

pavement repairs, paving of some gravel roads, intersections improvements, modest road widenings, and would preserve 85 percent of local bridges in good condition. It would address congestion, particularly in urban areas, with funds for the highest-priority capacity improvements.

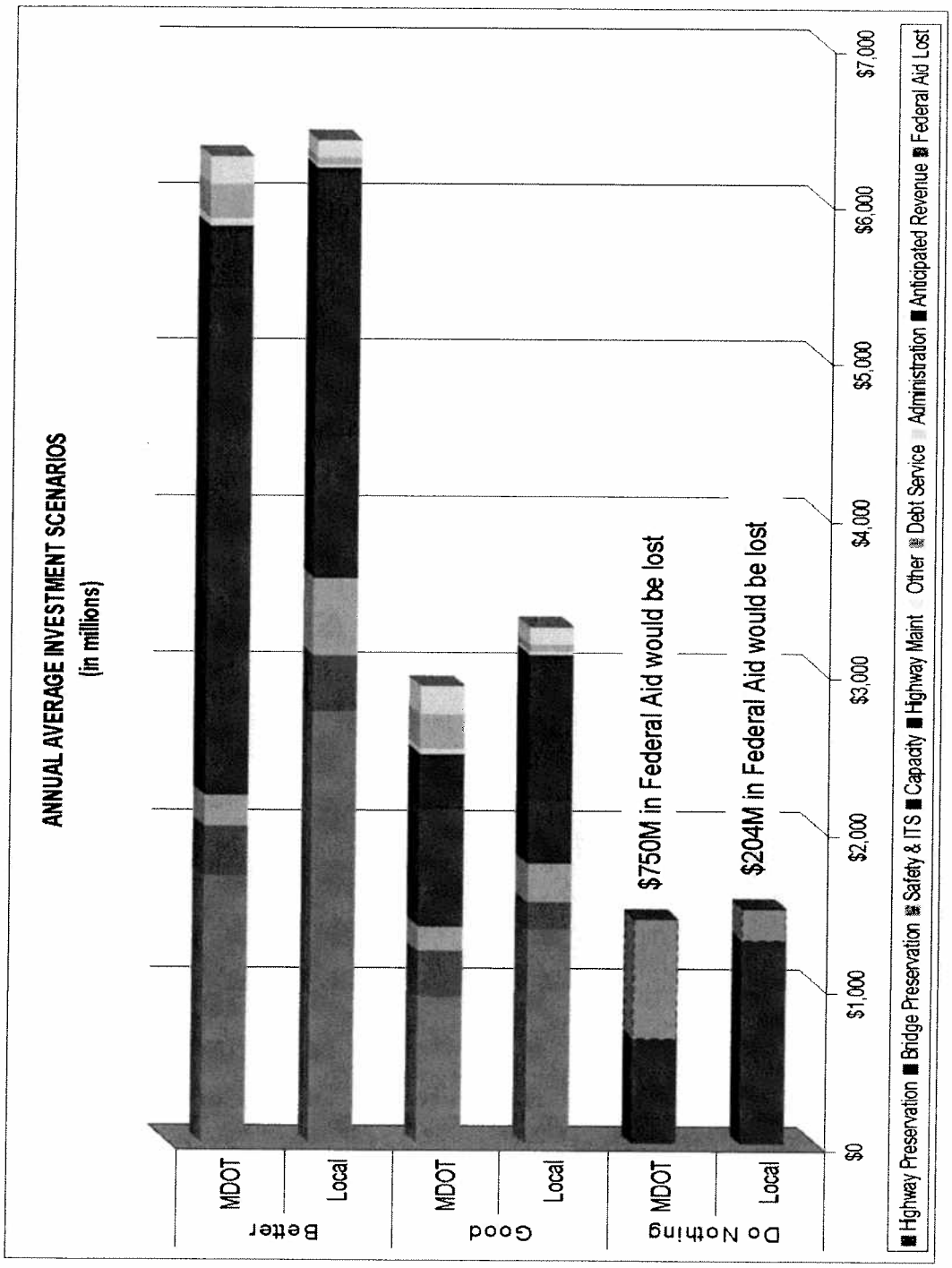
The "good" level of investment would increase safety programs to enable intersection safety projects and a variety of other safety and operational programs or improvements. It would allow highways to better serve tourists and commuters with improvements to rest areas, particularly for energy efficiency, and modest expansion of carpool parking lots. Routine maintenance of existing infrastructure at the state and local levels would be adequately funded at this level of investment.

**"Better" Investment: $12.7 billion annually**

In addition to all of the improvements made possible by a "good" investment in Michigan's transportation system, doubling this allocation would further strengthen the economy and ensure a competitive transportation system. A substantial increase in funding for transportation would provide a world-class system of highways, roads, and bridges throughout the state.

A "better" level of investment could potentially sustain more than 179,000 jobs, as well as generate economic benefits of $76 billion per year. An expected 90 percent of pavements and bridges would be preserved in good condition at both state and local levels. Congestion would be addressed with essential highway capacity improvements, making funds available for highway projects that have already been identified and improve the design of existing intersection traffic bottlenecks. An expanded safety program would further improve safety for all drivers, and sidewalk and other improvements would be implemented to meet requirements of the Americans with Disabilities Act (ADA).

## Figure 11: Highway, Road, and Bridge Investment Options



## *Section C - Intermodal Freight*

The world's largest bilateral trade relationship exists between the United States and Canada, with Michigan positioned as a leader in international trade. Goods and people moving across Michigan's borders significantly impact the economies of Michigan and Ontario, and the economies of the United States, Canada, and other nations.

- By truck, Michigan is the #1 trading partner (among U.S. states) with Canada and the #3 trading partner (among U.S. States) with Mexico
- The Ambassador and Blue Water Bridges rank as the top two commercial crossings on the border between the U.S. and Canada
- In 2007, 5.2 million commercial trucks carried more than $216 billion in annual trade across the border via the Michigan-Ontario border crossing network
- In 2007, 15.6 million passenger vehicles traveled across Michigan's international border crossings, which generated $284 million in the local and regional economies of Michigan
- 221,500 Michigan jobs are supported by trade between the U.S. and Canada

The rapid and inexpensive movement of goods throughout the U.S. supply chain, particularly through Michigan's ports and critical trade corridors, helps to secure the state's economic future by maintaining our competitiveness in world markets. Explosive growth, improvements in the manufacturing process, and new technologies all contribute to this trend, but they also place a strain on the capacity of Michigan's trade gateways.

The U.S. Department of Transportation estimates that freight traffic will nearly double in the next 20 years. Growing demand and limited capacity will increase congestion, as well as freight transportation prices, and cause less reliable trip times as freight carriers struggle to meet delivery windows. Over time, these limitations can increase the cost of doing business, increase the cost of living for consumers, and decrease Michigan's productivity and competitiveness. Task Force members believe that intermodal freight will continue to grow and will require additional investigation and investment in the future.

### Infrastructure and Service Provided

The most recent multi-modal freight data show that in 2003*, Michigan's transportation infrastructure moved 670 million tons of freight, valued at over $1 trillion. Trucking accounted for nearly 70 percent of the tonnage moved, followed by rail at 18 percent, water at 12 percent, and air at just under one percent (Figure 12).

The infrastructure used to move freight has varied involvement from the public sector, depending upon the mode. For example, the public sector provides highways used by privately-owned trucking companies and their vehicles. Rail freight services are privately provided on rail lines, which are nearly all owned by the private sector. In Michigan, several hundred miles of rail line are owned by the state and operated by private companies.

Marine freight utilizes publicly-owned and maintained waterways - generally by the federal government - while terminals, docks, carriers, and services are primarily privately-owned. Some terminals and docks are owned by public sector authorities or agencies.

In aviation, the airways and most airports are controlled by the public sector, with freight services provided by private carriers. The public sector has a regulatory function in all modes, primarily dealing with safety issues.

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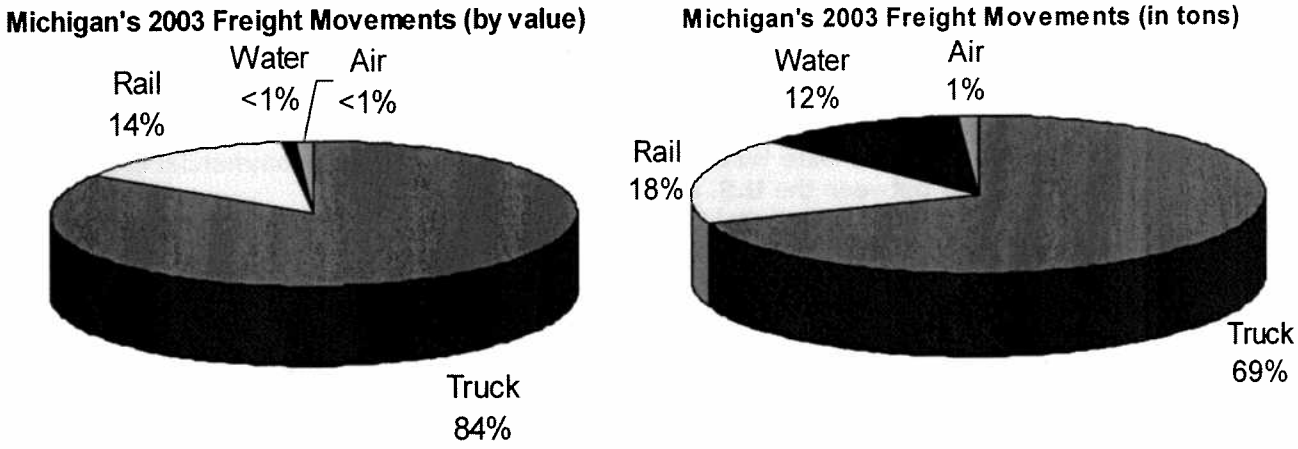
** 2003 is the most recent year that freight data is available across all modes in will be used for consistency within this section of the preliminary report.*

## Figure 12: Michigan Freight Movements in 2003




**Trucking Cargo.** Nearly every product consumed in the U.S. at some point is transported by truck. The trucking industry plays a key role in today's globally integrated economy, employing 8.6 million people nationwide. In Michigan, the trucking industry employs one in every 11 residents of the state. Trucks haul 69 percent of freight by volume and 84 percent by value compared to other modes, as motor carriers provide the final delivery from intermodal facilities. Trucking accounted for nearly 474 million tons of commodity movements in, out, within, and through Michigan in 2003, with an estimated value exceeding $1 trillion (Figure 13). The heavy dependence of the U.S. economy upon the trucking industry has also contributed to increasing congestion on state and national highways, and Michigan is no exception.

**Figure 13: Top Commodities Moved by Trucking in 2003**

| Commodity | Tons | Commodity | Value |
|---|---|---|---|
| Nonmetallic ores and minerals | 111.4 | Secondary traffic | $344.5B |
| Secondary traffic | 62.0 | Transportation equipment | $159.3B |
| Clay, cement, glass, stone | 49.9 | Machinery | $100.3B |
| Food products | 32.7 | Fabricated metal products | $62.2B |
| Farm products | 31.6 | Electrical equipment | $57.9B |

Source: MDOT State Long-Range Transportation Plan, 2005-2030, Freight Profile Technical Report

**Rail Cargo.** Michigan has approximately 3,600 miles of rail lines operated by 26 companies. MDOT manages 530 miles of rail lines that provide the only access to shippers in some rural parts of the state. It has been estimated that the use of rail freight saves taxpayers $266 million annually on roadway investments. This industry specializes in cost-effective shipping of heavy products long distances, including coal, steel, fertilizer, lumber, ores, grain, and chemicals. MDOT operates a grade crossing program that provides federal and state funding for improvements at the state's approximately 4,800 public grade crossings where rail lines and state highways intersect.

In 2003, Michigan's railroads carried nearly 120 million tons of freight, and the estimated value of these rail flows exceeded $162 billion. In 2006, the amount of freight moved by rail increased to 123 million tons with an estimated value exceeding $278 billion (Figure 14).

**Figure 14: Top Commodities Moved by Rail in 2003**

| Commodity | Tons | Commodity | Value |
|---|---|---|---|
| Coal | 19.41 | Transportation equipment | $80.52B |
| Chemical products | 14.49 | Misc or mixed shipments | $22.99B |
| Transportation equipment | 13.54 | Primary metal products | $20.43B |
| Paper and pulp products | 7.93 | Chemical products | $13.45B |
| Primary metal products | 7.81 | Paper and pulp products | $7.45B |

Source: MDOT State Long-Range Transportation Plan, 2005-2030, Freight Profile Technical Report

**Air Cargo.** Although it makes up a relatively small percentage of the state's freight transportation, air cargo services are particularly important for high-value and time-sensitive commodities. In 2003, Michigan airports handled over 300,000 tons of air cargo. By 2007, the amount of cargo moved had increased to just over 350,000 tons. According to 2005 international trade statistics provided by the Foreign Trade Division of the U.S. Census Bureau and the U.S. Customs Service, air cargo accounted for less than one percent of total U.S. trade tonnage (imports and exports combined), yet accounted for nearly 37 percent of total trade value in dollar terms.

**Marine Cargo.** The Great Lakes and St. Lawrence River form a maritime transportation system extending 2,300 miles from the Atlantic Ocean to the western end of Lake Superior. Michigan's 3,200 miles of shoreline along four of the five Great Lakes contain nearly 40 commercial ports and 140 marine terminals that ship or receive cargo.

In 2003, Michigan's ports handled more than 78 million tons of freight valued at more that $5 billion. Most of the waterborne commerce at Michigan's 40 commercial ports consists of bulk cargo. Stone, sand, iron ore, and coal accounted for 86 percent of the freight total. Cement, petroleum, and chemicals account for another 12 percent. These materials are used in the steel, construction, agriculture, and petroleum industries throughout the Great Lakes region. The steel industry alone accounts for about half of Michigan's total waterborne commerce.

## Current Funding and Funding History

Traditional federal transportation funding received through the Federal Highway Administration (FHWA) cannot be spent for freight projects that are not a part of the highway system. For example, federal highway funds cannot be used for improving or expanding railroad lines or terminals. Because of this, much of the funding received for freight infrastructure comes from private investment or individual freight companies and shippers. For example, in 2006 the private sector investment in the maintenance of rights-of-way along state highways, plus investment in rolling stock in Michigan was over $175 million.

In addition to the Capital Development Program (state-owned lines), there is the Michigan Rail Loan Assistance Program and the Freight Economic Development Program. MDOT's rail

programs, as well as the Grade Crossing Program, are currently funded with $14.3 million in federal and state transportation dollars.

Historical allotments for the Grade Crossing Program have not increased since 1993, despite the rise in project costs of at least six percent per year. This program has also seen reduced allocations since 2006 and is anticipated to receive $3.3 million less in 2009.

**Funding Outlook.** The cost of managing, moving, and storing goods - total logistics - has increased for the first time in over 25 years, attributed to fuel prices and the restricted system capacity across all modes of freight transportation. The fear is that total logistics costs could undermine future economic productivity, competitiveness, and economic growth within the state of Michigan.[10]

The U.S. Department of Transportation Freight Analysis Framework predicts that the volume of freight will almost double by 2035. The percentage of truck shipments will increase within, from, and to the state, while the percentage of air shipments are expected to remain the same. Rail and marine shipments are predicted to decrease. The American Association of State Highway and Transportation Officials (AASHTO) has calculated that nationally, without growth in the freight-rail system, 900 million tons of freight could be shifted to the highways by 2020, costing shippers $326 billion and highway users $492 billion in travel time, operating and accident costs, and necessitating $21 billion in highway improvements (not including the cost of improvements to bridges, interchanges, local roads, new roads or system enhancements).

## Capital and Maintenance Investment Needs

### "Do Nothing" Investment: $14 million annually

This "do nothing" scenario represents the current level of public investment in freight infrastructure in Michigan, and is not sufficient to fully fund Michigan's freight infrastructure investment needs.

If additional investment is not made in freight transportation, MDOT estimates that it will be able to address 40 percent fewer grade crossings in FY 2010 versus 2005. MDOT has typically been able to add active-warning devices at 40 to 50 local crossings annually, but will be forced to address five to ten fewer locations in FY 2009 due to budget constraints. Federal funds allocated for trunk line grade crossings also will be reduced leading to a program funding reduction of $2 million in FY 2009-2011 compared to FY 2008 funding levels. The Michigan Rail Loan Assistance Program (MiRLAP) will continue to be $2.7 million short of $15 million required by statute to assist short lines in track rehabilitation.

### "Good" Investment: $19 million annually

A "good" level of investment in freight transportation would allow the Grade Crossing Program to return to historical funding levels. An additional five to ten safety enhancement projects on local roads and state trunklines could be completed, as well as 10 to 20 crossing surface improvements at trunkline crossings annually. This would allow MDOT to annually address about five percent of the locations that would most likely warrant safety enhancements. Track rehabilitation efforts would be improved, but would continue on a

[10] *Association of American Railroads. National Rail Freight Infrastructure Capacity and Investment Study, Sept 07.*

limited basis. Transportation investments would be focused on congestion mitigation on commercial trade routes that will have the most impact on systemic chokepoints.

This level of investment would also increase property management and emergency repairs on state owned rail, eliminate deferred track maintenance, and allow for MiRLAP to provide loans for three additional projects each year.

**"Better" Investment: $41 million annually**

Increased funding to "better" would enable MDOT to improve trunkline crossing surfaces to meet the good pavement condition goal of 90 percent. A "better" investment would leverage $5 million in private railroad investment for grade crossing safety. MDOT would be able to modernize existing warning devices at trunkline crossings, ensuring device reliability and uniformity for motorists at 10 to 20 locations per year. Additional funding would create a program to help upgrade the most critical crossing surfaces on local roads. A program to match railroad investments would support approximately 200 projects to improve crossing surfaces on local roads annually, about five percent of all local crossings.

Property management and emergency repairs on state-owned rail would be adequately addressed at the "better" investment level. Track rehabilitation projects would be performed on 15 to 20 miles of system each year. Economic development activity from rail lines would be expanded upon. Additional funding allocated to MiRLAP would promote short line modernization to allow higher capacity (286,000 pound railcars) and meet increased demand for rail service.

Additional investment would allow for congestion mitigation on freight routes to improve mobility performance. Trade corridors (I-94, I-75) would be selected as priorities, including the expansion of Customs Pre-Clearance participation and maximizing inspection facilities where MDOT has responsibilities. A "better" investment level would upgrade the remaining four percent of seasonal state highways and sections of county roads to Class A. The Transportation Economic Development Fund (TEDF) is intended to distribute funds between counties for the construction or reconstruction of access roads based on their percentage of the state's total acreage of commercial forest, national park, and national lakeshore land. Funding for these roads has not increased from $5 million since 1987, but would see increases with a "better" level of investment.

## *Section D - Intermodal Passenger*

In Michigan, transit usage is up significantly for both local transit and intercity services. In early 2008, some local transit and intercity passenger rail services have experienced growth of 20 percent or more. Since bus transit is the backbone of any public transit system, Michigan has an excellent foundation on which to build. However, rail - light rail, commuter rail and intercity rail - are vital to building an effective system in the 21st century. Data gathered from other states shows that a serious investment in modern transit is not an option for Michigan - it is an urgent necessity.

Intermodal passenger ridership is increasing and citizens are demanding more transportation options, while fluctuating gas prices and the aging population accelerate the demand. A major contributor to the growing number in transit ridership is the increasing average price for unleaded gasoline. In 2006, it hit an all-time high of $3.01. Two years later the average price increased by 35 percent to $4.07. As the price of fuel increased, state residents drove less, switched to more fuel efficient vehicles, car pooled, or sought out alternative modes of transportation. A vast majority of riders of Michigan's intercity rail and bus system have another option to use in making the trip, but choose not to because of the convenience provided by the local system and the potential cost savings – in terms of both money and time - of leaving the car at home.

Further contributing to the increase in transit use is the increase in Michigan's senior population. By 2030, it is projected that much of the southern Lower Peninsula will see an increase in this age group of more than 100 percent. By 2035, there will be as many seniors and children in Michigan as there are working people to support them. Michigan's population is expected to increase by slightly less than eight percent by 2030, while the senior population is expected to grow at a rate 10 times the overall population growth. The growing number of seniors in the state that are choosing to continue to work, socialize, and stay active will put a strain on the already struggling infrastructure. When coupled with the projected statewide population increase, this growth will result in more drivers, more cars, more vehicle miles traveled (VMT), and more road congestion, pushing Michigan's residents to find other alternatives to driving.

### Infrastructure and Service Provided

Michigan funds a transit system that is a compilation of local public and non-profit service providers. It includes local and county level bus systems, several multi-county bus systems, one fixed guideway system, and targeted services for the elderly and persons with disabilities. All 83 counties have some level of demand response service, 18 counties provide fixed-route service, and 60 counties offer county-wide service, providing 80 percent of our population with access to local transit.

Michiganders took just over 95 million trips on public transit in 2007, gaining access to jobs, medical care, education, shopping, recreation, and other services. Ridership grew 10.8 percent from 2005 to 2007. In 2007, an additional 1,611,734 passengers were transported through the Specialized Services Program, targeted to Michigan's aging senior population - a 7.4 percent increase since 2004.

**Public Transportation.** Public transit use has been steadily growing across the state. Michigan's public transit systems are categorized as urban and non-urban (rural) based on their service area population. There are 20 urban transit systems, in communities with

50,000 persons or more. All of Michigan's urban areas have a local public transit system. Over 88 million passenger trips were provided by these urban systems in 2007, which represents nearly 93 percent of the state's annual transit ridership.

There are 71 non-urban (rural) transit systems in Michigan, which include 12 systems that also operate in urban areas. These systems provided 7.1 million passenger trips in 2007, representing about seven percent of annual ridership. These systems have a total of 3,077 vehicles in their fleets, with 1,447 operating on fixed routes and 1,630 used for demand-response service.

Other elements of Michigan's public transit system include the MichiVan Commuter Vanpool Program, which used 148 vans carrying a total of 1,130 commuters in 2005. That number has since doubled to 304 vans carrying 2,622 riders as of October 1, 2008. In 2005, the Detroit People Mover carried more than 1.5 million passengers. Also, the two state-supported marine passenger services carried a combined total of approximately 894,000 passengers in 2005.

**Intercity Rail and Bus.** Intercity passenger services include both intercity bus and passenger rail. The primary carriers are the National Railroad Passenger Corporation (Amtrak), Greyhound Lines, Inc., and Indian Trails, Inc. The Upper Peninsula and most of the northern Lower Peninsula are limited to only intercity passenger bus service, while the southern portions of Michigan are served by both train and bus.

Increased local marketing, community involvement and awareness, and the increasing cost of gasoline have all contributed to ridership increases throughout the state. As a result, ridership for Michigan intercity passenger rail services reached an all-time high in 2008, with a total of 720,647 passengers.

Greyhound Lines and Indian Trails provide daily regular-route intercity bus service to 120 Michigan communities, with some service to rural areas supported by the state. There are 27 intercity bus passenger facilities, of which MDOT owns four. Local governments and local transit agencies own and/or operate 21 transportation facilities; Indian Trails owns and operates two transportation facilities. Also, 18 passenger facilities are categorized as intermodal facilities, serving more than one transportation mode.

Amtrak offers intercity passenger rail services along three major corridors in Michigan: the Pere Marquette (Grand Rapids-Chicago), the Blue Water (Port Huron-Chicago), and the Wolverine (Pontiac-Detroit-Chicago). These three passenger rail corridors serve 22 station communities and consist of 521 route miles in Michigan. The Pere Marquette and Blue Water offer one round trip per day and the Wolverine offers three daily round trips.

The Pontiac-Detroit-Chicago corridor is one of the original federally-designated High-Speed Rail Corridors. The corridor currently includes the only segment of track outside the Northeast Corridor that has the technical ability to handle speeds of 110 mph and currently operates at 95 mph. This segment of track extends over 45 miles of Amtrak ownership and is located west of Kalamazoo.

From 2002 to 2008, the Blue Water transported 766,615 passengers and operated 1.6 million train-miles. For this same period, the Pere Marquette transported 636,224 passengers and operated 898,000 train-miles. On the two state-supported routes, Amtrak transported 1,402,839 passengers and operated 2.5 million train-miles.

Michigan is also involved in the Midwest Regional Rail Initiative (MWRRI), in an effort to ensure Michigan is investing in an intercity passenger rail system that connects to an

equally developed system beyond its borders. This is especially critical in connecting to the Midwest's intercity passenger rail system hub in Chicago. The MWRRI will help address issues outside of Michigan's borders that can improve service within the state, such as finding ways to reduce rail congestion that impedes passenger travel.

## Current Funding and Funding History

The Comprehensive Transportation Fund (CTF) has been the primary source of state funding for Michigan's public transportation programs since its creation in the 1970s. Over the past 10 years, appropriations from the CTF have provided an average of $200 million annually to these programs.

The CTF provides funds for:

- Intercity bus operations and capital investment statewide
- Intercity rail operations for two of the state's three intercity rail services, and rail capital improvements, including the high-speed corridor
- Intercity rail and bus terminals
- Bus transit operations and capital investment for 79 transit systems
- Operations and capital support for two publicly-owned marine passenger services
- Public transportation services throughout the state for targeted populations (seniors, persons with disabilities, and transportation to work for low-income individuals)
- Preservation and maintenance of the state-owned rail freight lines
- Rail freight-based economic development
- Oversight of multi-modal programs including transit, intercity passenger, rail freight, and for-hire bus and limo regulation
- Debt service on CTF bonds that support routine capital investment for local transit, intercity bus and rail, and rail freight, as well as special projects for all forms of public transportation, including marine and aviation

The primary revenues to the CTF are sales tax contributions and transfers from the MTF. The annual contributions of MTF and sales tax to the CTF are set in statute. In general, the MTF distribution to the CTF is approximately two-thirds of CTF annual revenue, and the sales tax contribution is the other one-third. Currently, Public Act 51 of 1951, Section 10 (1) distributes 10 percent of funds from the MTF to the CTF, after certain specified deductions. The annual MTF distribution to the CTF equates to about eight percent of the MTF before deductions.

Under the General Sales Tax Act, two-thirds of the six percent sales tax is to be distributed as follows:

- 15 percent to cities, villages and townships
- 60 percent to the state school aid fund
- 25 percent as follows
  - Not less than 27.9 percent of the tax collections from motor vehicle related sales to the CTF
  - Balance to the General Fund

Historically, the state has provided operating funds to transit systems, but the percentage of operating funds provided by the state has declined steadily for several years, eroding the ability of local transit agencies to maintain - much less improve - service.

Under the current distribution formula, funding is distributed based on operating expenses. This creates a number of problems:

- Discourages expansion: When one transit agency's costs increase because of growth or expansion of service, it diminishes the amount of funding available for all other transit agencies. Growth in urban areas should not have a proportional negative impact on rural systems.
- Discourages cost-cutting efficiency: Transit systems should be rewarded for efficiency, not penalized with less funding.
- Makes funding less predictable: Because the final amount of funding distributed is not certain until all system audits have been submitted in a given fiscal year, it is not unusual for funding adjustments to be made even after the books have been closed. It is very difficult for transit systems to develop multi-year plans for service or facility improvements when they can not accurately forecast revenue.
- Devolves costs from the state to locals: Funds collected at the state level for public transportation have been used for other purposes in recent years, forcing local governments to make up the difference.

Prior to FY 2005, MDOT provided the required 20 percent matching funds for all federally-funded transit capital grounds using CTF revenues, but with increased federal funds coming to Michigan under TEA-21, SAFETEA-LU, and constrained CTF revenues, the CTF has not been able to keep up with federal match obligations. The CTF's match obligations for FY 2008 were $30 million, as compared to the CTF appropriation of $10.3 million. This represents an annual shortfall in the CTF that has been masked with bond proceeds and toll revenue credits. Several regional rapid transit projects that have or are close to receiving FTA approval will not be able to proceed because the CTF cannot provide the match needed to access federal grants.

CTF revenue for investment in intercity bus terminals has also been greatly reduced in the last five years as constrained CTF revenues have been redirected to continue support local transit and intercity operations. For example, the FY 2004 CTF appropriation for intercity terminals was $2.8 million. In FY 2008, the appropriation dropped to $300,000, which is shared by intercity bus and passenger rail programs.

**Funding Outlook.** For a number of reasons, it is very difficult to project the amount of revenue available for passenger transportation. At the state level, CTF revenues have been redirected to other purposes, and the win-lose nature of the distribution formula exacerbates the problem.

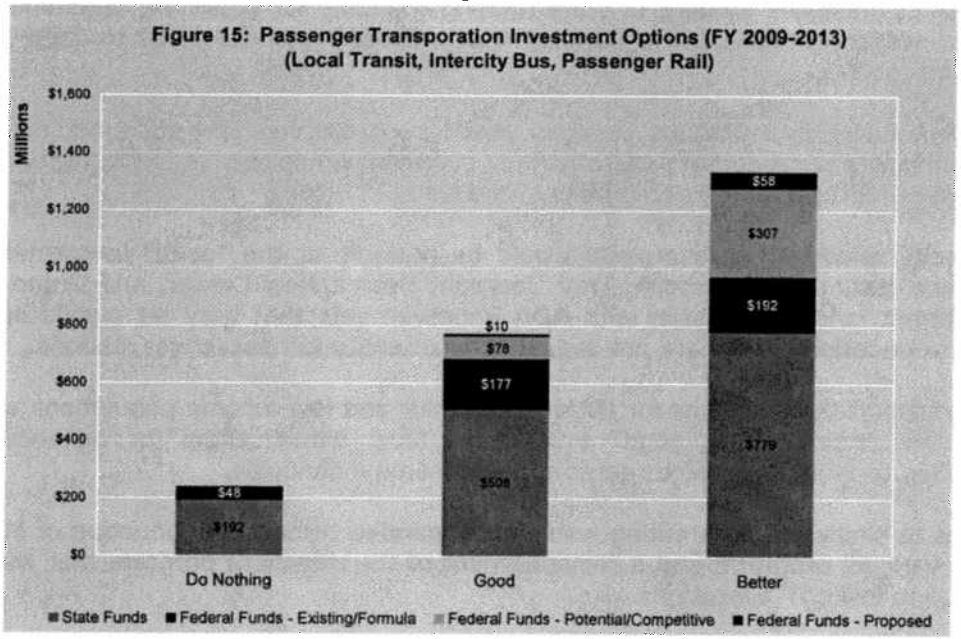
But federal revenue for passenger transportation is also unpredictable. The federal revenues that support local transit include both annual apportionments and Congressional earmarks. Although there has been significant discussion nationally about the merit of federal earmarking, in the area of passenger transportation, earmarked funds are fundamental to the program and can account for as much as 40 percent of federal funds available for transit in Michigan. Congressional earmarks vary widely from year to year and program size varies with them. Federal funding for rail passenger and marine passenger systems is also based on Congressional earmarks and special projects and is equally difficult to predict.

## Capital and Maintenance Investment Needs

### "Do Nothing" Investment: $241 million annually

Continuation of the current level of investment in passenger transportation will lead to a reduction in local transit services. By 2013, Michigan transit agencies stand to lose up to $112 million annually in federal allocations at a time when demand and ridership are at record highs (Figure 15). Without additional investment in public transportation:

- Rapid and/or regional transit projects in Michigan's urban areas will not be possible.
- All transit systems will be forced to cut services at some point without at least modest growth in operating assistance to keep pace with expenses. The most immediate threat is to rural systems, many of which are barely able to survive at current levels.
- Systems will not be able to invest in new technologies that make operations safer, more convenient, more customer-friendly, and more attractive to potential riders. Procurements for things like on-board camera systems, more advanced fare collection equipment, and real-time bus information will be delayed or cancelled because of a lack of funds for such investment.
- Intercity passenger rail service will be discontinued because of a lack of funds to cover projected cost increases.
- Service will be lost that connects 14 Michigan communities and 232,000 passengers to the national rail network in Chicago.
- Infrastructure improvements to maintain existing intercity and passenger rail systems will be minimal.
- State contracts to support intercity bus service to rural parts of the state will be curtailed.
- Routine replacement of motor coaches will not be possible.
- Preventive maintenance on transit buses will be reduced.
- Transit buses will not be replaced with more fuel efficient and/or lower emission models when they reach the end of their useful lives.
- Passenger facilities will not be upgraded and expanded; only minor maintenance will be possible for some of the 44 existing terminals.



**"Good" Investment: $773 million annually**
A "good" level of investment of $508 million in state funds would create or retain more than 35,000 jobs, leverage $265 million in federal aid, and encourage over $4 billion in related economic benefits throughout the state.

Michigan's largest urban areas would be economically competitive with other metropolitan areas through the introduction of rapid, regional transit to the state. Increasing state funds for passenger transportation enough to match federal funds and provide state operating assistance would make it possible to:

- Implement new rapid transit in the Grand Rapids area, an FTA-approved project, bringing economic benefits to the corridor.
- Develop new light rail transit on Woodward Avenue.
- Develop a new commuter rail demonstration project between Ann Arbor and Detroit, scheduled for start-up in 2010 as a first step to accessing $100 million in federal funds allocated to the project under SAFETEA-LU.
- Develop the new commuter rail service between Ann Arbor and Howell now being planned by local and regional officials with MDOT assistance.

Because there is no federal program to expand passenger rail service in Michigan, a "good" level of investment would be needed to maintain existing passenger rail service in the state. Under Amtrak's Strategic Pricing Initiative, the portion of the costs currently borne by Amtrak for intercity passenger rail service in Michigan would be passed on to the state, increasing the state's obligations by at least $20 million per year to maintain existing service levels. If a federal program were established, intercity passenger rail service could be expanded with a "good" level of investment, essentially doubling both capacity and frequency over 10 years - assuming 100 percent state-funded operations and 50 percent state-funded capital.

Local bus transit agencies would be able to maintain and increase service with increased frequency, expanded service areas, and/or increased use of alternative fuel technologies and information technologies to improve customer service. This level of investment would immediately increase the amount of state funding available for operating assistance to the maximums allowed for in P.A. 51, bringing much needed financial relief to cash-strapped local transit agencies.

Programs related to intercity bus services would be preserved at the "good" investment level. Existing state-supported intercity bus services would be preserved and routine replacement of motor coaches would be ensured.

Major intercity terminal improvements would be possible at the "good" investment level, including new stations in Dearborn, Troy, Jackson, Detroit/New Center, and Grand Rapids. This investment could also assist with ADA improvements that may be mandated at rail platforms, since federal funds are not available for intercity rail passenger stations.

Targeted transportation services for Michigan's senior and low-income populations would be expanded. In particular, a "good" investment level would allow for an increase in Transportation to Work services targeted to low-income individuals.

Alternatives to single-car commuting would be expanded through continuation of MichiVan, the state's vanpool program, and a reinstatement of the rideshare program that was cut in FY 2005 due to lost CTF allocations.

**"Better" Investment: $1,336 million annually**
A "better" level of investment of $779 million in state funds would create or retain more than 59,000 jobs, leverage $557 million in federal aid, and encourage over $7 billion in related economic benefits throughout the state. In addition to all of the items identified in the "good" investment scenario, this would allow the state to expand, enhance, and develop transit services and facilities as identified in the MI Transportation Plan (MITP).

At the "better" investment level, development of rapid/rail transit in corridors that may not be eligible for federal funds would be possible through the use of exclusive state funds. Experiences in other regions of the country indicate some portion of a regional rapid transit system will need to be constructed without federal funds in order to demonstrate the project's feasibility and make it more competitive for federal funds, or to complete portions of the system that may not meet strict federal criteria.

Michigan's portion of the Midwest Regional Rail Initiative (MWRRI) could be implemented over 10 years with "better" investment, making it possible to travel by train between Detroit and Chicago in under four hours at a maximum speed of 110 mph. The "better" investment level would make it possible to significantly increased frequency of trains, improve feeder bus service, travel at higher speeds, and achieve better on-time performance.

The "better" scenario would provide greater funding stability for transit and spur economic growth. An increase in state investment in transit could lead to unprecedented growth in the system, providing service to meet the growing demand in ridership.

With a "better" level of investment, all existing intercity bus service would be preserved. This investment would provide for one small to moderate terminal project each year. This level of investment would also establish a new program that would provide capital assistance to innovative public-private partnerships for shuttle bus service.

A "better" level of investment could be used to help fund past applications to the New Freedom program and the Transportation to Work program which had to be declined previously for lack of available funds.

## Figure A: Summary of Transportation Investment Scenarios

| Investment Scenario | Aviation | Highway, Road & Bridge[11] | Intermodal Passenger | Intermodal Freight | Total Across Modes |
|---|---|---|---|---|---|
| **Do Nothing** | **$121M** | **$1,900M** | **$241M** | **$14M** | **$2,276M** |
| State & Local Funds | $16M | $1,653M | $193M | $7M[12] | $1,869M |
| Federal Funds Leveraged (avg per year) | $105M | $247M | $48M | $7M | $407M |
| Federal Funds at Risk (avg per year) | ($16M) | ($954M)[13] | ($112M) | ($0) | ($1,082M) |
| Jobs Lost[14] | (416) | (13,532) | (3,516) | (N/A)[15] | (17,464) |
| **Good** | **$242 M** | **$6,136M** | **$773M** | **$19M** | **$7,170M** |
| State & Local Funds | $79M | $4,935M | $508M | $12M | $5,534M |
| Federal Funds Leveraged (avg per year) | $163M* | $1,201M | $265M* | $7M | $1,636M |
| Jobs Supported | 3,800 | 87,000 | 35,100 | 250 | 126,150 |
| Other Benefits | Not Available | $37,000M | $4,369M | $31M | $41,400M |
| **Better** | **$327M** | **$12,696M** | **$1,336M** | **$41M** | **$14,400M** |
| State & Local Funds | $130M | $11,495M | $779M | $34M | $12,438M |
| Federal Funds Leveraged (avg per year) | $197M* | $1,201M | $557M* | $7M | $1,962M |
| Jobs Supported | 5,200 | 179,000 | 59,000 | 600 | 243,800 |
| Other Benefits | Not available | $76,200M | $7,449M | Not available | $83,649M |

[11] *Current investment among road agencies is $3.2 Billion (FY 08), putting the current total across modes at $3.576 Billion. Doing nothing will result in a decrease in funds available for investment in highways, roads and bridges.*

[12] *This amount only reflects rail investment. Trucking and air cargo are in their respective columns. No other freight funds were identified.*

[13] *Estimates of federal aid are subject to change based on decisions made by the federal government.*

[14] *Aviation - One job is estimated to be supported for every $60,000 spent. This figure includes direct and indirect jobs from construction expenditures, but does not reflect additional jobs created by increased passenger or cargo traffic as a result (Adapted from economic benefits studies of Detroit Metro and Willow Run Airports). Highway, Road, and Bridge - One job is estimated to be supported for every $70,500 spent. (Adapted from U of M's Economic Benefits of MDOT's 2007–2011 Highway Program). Intermodal Passenger – One job is estimated to be supported for every $32,000 invested in capital for transit. (Adapted from Cambridge Systematics Study, E-1).*
*Intermodal Freight – With no federal funds at risk, there will be no job loss.*

[15] *The investment scenarios for intermodal freight were not included. Only rail investments were identified by the CAC Intermodal Subcommittee. Air and truck-cargo investment needs were included with their respective infrastructure, and no specific marine cargo investments were identified. Rail infrastructure supports over 4,000 jobs in the state, however, there was not a comparable calculation identified to accurately identify "jobs supported" by the investment scenarios as was done for other modes.*

* *Federal funds leveraged includes possible competitive federal grants that could be available.*

# Section 4: Current Efficiencies

The Task Force members felt that it was important to understand the types of efficiencies, reforms, and best practices currently being implemented before any real discussion of increased investment begins. What they learned was that there are many operational efficiencies and reforms being implemented every day by transportation agencies across the state.

In order to maximize the delivery of services and programs with limited revenue, transportation agencies – including the state, county road commissions, municipalities, local transit agencies, airport authorities, and others – have continually worked to be more efficient. Often this effort is transparent, that is the people who use the transportation system do not notice the budget-cutting measures being taken, because service continues without interruption.

The following examples are just a few of the biggest, most comprehensive examples of reform and efficiency taking place. For a complete list of all efficiencies, reforms, and best practices currently being implemented across the state, click on "View Final Report" at the Web site of the Transportation Funding Task Force at www.michigan.gov/tf2.

**Asset Management**

One of the most effective reforms in Michigan has been the implementation of asset management programs for all modes of transportation. Asset management is a data-driven, decision-making approach that helps ensure the appropriate investment is made at the right time to preserve the life of a physical asset.

Roads and Bridges: The creation of the Asset Management Council and implementation of asset management across road jurisdictions has been a ground-breaking effort. In order to provide a uniform data set, collection methods, etc., which are required to have a credible asset management program, extensive cooperation was required between road agencies and governments at all levels. Achieving this level of cooperation was historic and unprecedented. Never have so many road agencies, municipalities, metropolitan planning organizations, and MDOT worked so closely together for such an extended time to create a universally applicable system that is shared by all agencies with road jurisdiction in the state.

Transit: Asset management practices are also used for passenger transportation assets. Some transit agencies have extensive vehicle rehabilitation programs to extend the service life of vehicles beyond the dates when federal funds could be used for vehicle replacement. In Genesee County, the mid-life rehabilitation of transit buses extended the life of the buses by 12 to 20 years. This allows the transit agency to focus federal funds on other capital needs or operational expenses (when possible). In addition, MDOT uses asset management principles to allocate available federal funds for replacement of rural transit vehicles, to extend the life of vehicles, and to maximize the limited funding available for capital improvements.

Airports: MDOT developed two important tools to help manage aviation assets: the Airport Pavement Management System (APMS) and the Michigan Airport System Plan (MASP). The APMS allows MDOT to objectively quantify the condition of airport runway and taxiway pavements, monitor airport pavement condition, identify cost-effective maintenance and

repairs to extend the life of the pavement, and track performance. The MASP greatly increases MDOT's efficiency in planning projects by categorizing airports in a tier-based prioritization system that focuses investment where it will have the most benefit. In combination, these tools help ensure the maximum return on dollars invested in airport infrastructure.

**Inter-Agency Cooperation**

There are many examples of transportation agencies working cooperatively with each other, or with the private sector, to improve service, infrastructure, or reduce costs. The arrangements can be formal or informal, program-wide or project-specific, large or small, but inevitably they stretch taxpayer dollars or improve service. Here are just a few:

The Southeastern Michigan Snow and Ice Management project (SEMSIM): SEMSIM was the first project of its kind in the nation. The four largest local road agencies in the state, as well as the regional public transportation service, joined forces to introduce cutting-edge winter road maintenance fleet-management technology. One of the major factors that made this project so unique is the unprecedented inter-jurisdictional cooperation involved. The project greatly improved communications between the partner agencies and led to many instances of additional cooperation unrelated to SEMSIM. The end result is that through SEMSIM, as well as the additional level of inter-agency cooperation, there is now improved effectiveness and efficiency in the delivery of winter maintenance service and improved public safety across the region. The SEMSIM partner agencies are: the Road Commission for Oakland County, the Wayne County Department of Public Services, the Road Commission of Macomb County, the City of Detroit Department of Public Works, and the Southeast Michigan Authority for Regional Transportation (SMART).

MDOT Partnering with Meijer for Carpool Lots: In October of 2008, MDOT announced an agreement with the Meijer chain of stores, in which Meijer will allow MDOT to use sections of its parking lots at six stores as additional carpool lots. The agreement allows MDOT to significantly expand its carpool lot program at minimal cost to the agency. Expanding this program was identified as a major goal for increasing the opportunity for motorists to carpool, and thereby reduce the number of single occupant vehicles on the roads. Similar agreements could be reached with additional Meijer stores the in coming months and years.

Southeast Michigan Council of Governments (SEMCOG) Traffic Volume Data Collection: SEMCOG maintains a public database of traffic volume counts on nearly all roads in its region. At least one road commission in the region that used to maintain its own such database now simply provides data to SEMCOG, saving the cost of maintaining a separate database, and making this information readily available to a much larger segment of the public.

Pavement Management: Grand Valley Metro Council (GVMC): A cooperative pavement management effort is being undertaken by the GVMC that serves the counties of Allegan, Barry, Ionia, Kent, Montcalm, and Ottawa. The members of the GVMC, through the council, collectively purchased a specialized pavement management vehicle in 2006. The specially equipped vehicle is a new, advanced-technology tool used to gather data on pavement conditions. This data helps local and state officials make better decisions about road repairs and reconstruction. The full-sized van is equipped with state-of-the-art electronic pavement scanners, high-resolution still cameras, Global Positioning System (GPS) components, and computers. Operated by experienced transportation planners from GVMC's Transportation Department, the equipment is used throughout the GVMC area to ascertain pavement

conditions and enable all member road agencies to better manage roads, bridges, and other elements of the region's transportation network. Because of the cost of such a technologically advanced vehicle, none of the member counties or communities could have purchased the vehicle on its own.

Regional Transit Services: The regionalization of transit services has resulted in greater cooperation within and across agency jurisdictional boundaries. The Detroit Department of Transportation (DDOT) and SMART have streamlined routes and service delivery between them. In Kent County, Ingham County, Genesee County, and other areas, university services, student transportation services, and other mobility options have been broadened. The City of Kalamazoo's Metro Transit and Kalamazoo County's Care-A-Van transit service initiated a merger of the two systems to provide a single provider for the entire county. The Bay Metropolitan Transit Authority, Saginaw Transit Authority Regional Services, City of Midland Dial-A-Ride, and Midland County succeeded in coordinating existing services to enable passengers to easily travel by public transit among the four jurisdictions. The Straits Regional Ride, which began under an MDOT-funded regional demonstration project, successfully transitioned to transit agency status and is now a recipient of local bus operating formula funds, serving Cheboygan, Emmet, Otsego, and Presque Isle counties.

**Technology**

The benefit of technology to productivity and efficiency is undeniable and the examples are many. While the cost of some technology may be prohibitive to smaller agencies, larger agencies have been able to realize genuine savings and sustained cost-savings that more than justify the initial startup costs. A few examples follow:

Intelligent Transportation Systems (ITS): MDOT is a national leader in ITS, a concept strongly supported by the FHWA as one of the best ways to make road systems more efficient. MDOT's ITS system includes freeway changeable-message signs, electronic traffic monitors (cameras, traffic counters, etc.), "adaptive" traffic signals, and much more. At the local level, the Road Commission for Oakland County (RCOC) has been a leader in transportation technology for nearly 20 years. Today, RCOC operates the second-largest system of adaptive traffic signals in the nation and the largest system of video-imaging vehicle detection in the world. Across the border in Macomb County, the Road Commission for Macomb County (RCMC) is rapidly expanding its system of adaptive traffic signals as well. The FHWA and countless experts in the field, report that adaptive traffic signal systems, which adjust signals based on the traffic flow and volumes present at any moment, are one of the most cost-effective ways to increase road capacity, sometimes accomplishing the same goals as road widening at a fraction of the cost.

Geographic Information Systems (GIS): Many larger transportation agencies have also utilized GIS to increase efficiency. GIS allows geographic data and digital maps to be used in operational analysis at the user's computer. At RCOC, for example, the database allows employees to view transportation-related data, such as the road centerline, right-of-way, aerial photos, and topography directly from their desk. To increase productivity, a Web-based mapping system has been deployed which allows access to the maps from any Internet-enabled location. This system allows staff to conduct preliminary site research at their desks without the need of making costly and time consuming field visits.

RCOC was able to mitigate the initial startup costs of the system by partnering with the Oakland County Information Technology Department (OCIT), which already had vast infrastructure and data resources in place. An interagency agreement provides a two-way

data sharing agreement that lowers cost for data collection for both agencies through equipment sharing and technical training. Furthermore, the road commission uses OCIT staff to make updates to the system at a cost which is typically one-third of a private consultant. Further agency cooperation takes place between the road commission's Department of Permits and Environmental Concerns and the Oakland County Drain Commission. The two departments cooperate in locating and mapping drainage outfalls throughout the county.

Global Positioning Systems (GPS): An increasing number of Michigan road agencies are turning to GPS to enhance operational efficiency. In some cases, GPS is used to track agency vehicles. In other cases, agencies have required some companies they contract with to equip their vehicles with GPS so the agencies can better monitor the work of the contractors. In both cases, this technological advancement is providing road agencies with significantly enhanced information that allows them to better manage their resources.

Transit Technology: There are a variety of new technologies available to improve the efficiency of passenger transportation systems. Some transit agencies have implemented computerized dispatching systems to improve efficiencies in dispatching demand response vehicles. The Flint Mass Transportation Authority improved transit services through the use of Automatic Vehicle Locator Systems, Interactive Voice Response system, and Mobile Data Terminals. The Ann Arbor Transportation Authority has implemented real-time vehicle location information system called RideTrak via the internet and cell phones. The Rapid's ITS system will improve operational efficiency through real-time vehicle tracking, signal pre-emption, and automatic passenger counting. In addition, the Rapid's ITS system will also improve customer satisfaction by producing more accurate timetables and automatic stop announcements based on GPS technology. Many transit agencies also offer or are experimenting with new innovative fare cards. Providing passengers an attractive option for prepaying their bus fare allows for faster boarding times and decreases the effort of managing cash and change at the end of the day. SMART is experimenting with rechargeable, contract-free, smart-card that allow for even faster boarding and more convenient monthly payment options.

Traffic Signals: Another example in which road agencies are working together to eliminate redundancy and create efficiencies is in the area of traffic signal management. Traffic signals require the highly specialized skills of engineers and electricians to ensure they operate optimally and correctly, and that repairs are made properly and in a timely manner. Because there are often state, county, and city or village signals in close proximity, in some cases it would be redundant for each of these agencies to have specialized staff and equipment dedicated to maintaining them. When jurisdictions cooperate with each other to maintain traffic signals, great economies of scale are achieved by allowing all the signal maintenance expertise and highly specialized equipment to reside with a single agency. For example, the City of Grand Rapids maintains city traffic signals, all MDOT and Kent County Road Commission signals in the county, and some county and state signals in Ottawa County. In Oakland County, the RCOC maintains its own signals, all MDOT signals in the county, and most of the signals owned by cities and villages located within the county. In Eaton County, the county road commission contracts with the local electrical company, which already has the equipment required to maintain traffic signals.

**Performance Measurement**

All transportation agencies measure their performance in a variety of ways, from keeping safety statistics, assessing pavement or bridge condition, to evaluating on-time performance.

Since 1998, the Interurban Transit Partnership (The Rapid – Grand Rapids Metro Area) has been tracking system productivity by route in terms of farebox recovery, passengers per mile, passengers per hour, as well as average daily ridership. In 2002, fixed standards were established and approved by The Rapid's Board of Directors. Route performance is a key element in service decisions; the Board has used these reports to eliminate unproductive service and reassign the resources to areas with more demand.

The Rapid produces monthly ridership reports, and publishes a quarterly report card on their Web site that lists several key system statistics and assigns a green, yellow, or red light based on performance. Their performance, and the measurement process they use, is highly transparent to the public they serve.

All Michigan transit agencies submit data to MDOT that allows each agency (and their board and local residents) to review their performance over time and to review their performance in comparison to other Michigan transit agencies. For urban transit systems, similar data is submitted to the federal government, such that Michigan transit agencies can compare themselves to peers around the country. The tools are readily available to local boards and local voters to establish appropriate performance standards for their transit systems and hold them accountable for their performance.

**Purchasing Consortiums**

One way agencies have worked to become more efficient is by forming purchasing consortiums to achieve economies of scale to receive reduced or volume pricing.

Michigan Delivering Extended Agreements Locally (MiDEAL): This partnership allows local units of government to benefit from the state's negotiating and purchasing power by permitting them to purchase through the state's contracts on the same terms and conditions and at the same prices as state government. Local governments benefit not only from the reduced costs of goods and services, but also from indirect savings related to writing specifications, researching industries, processing invitations to bid, recruiting a diverse pool of potential suppliers, and awarding contracts.

MiDEAL was authorized by the Michigan legislature and has been in existence since 1975. Membership is extended to any city, village, county, township, school district, intermediate school district, nonprofit hospital, institution of higher learning, and community or junior college in the state. Some of the most frequently used contracts include office supplies, janitorial products, carpet, pharmaceuticals, disposable paper, lawn and garden equipment, cell phone equipment and service, fuel oil, gasoline, tires, vehicles, hardware, tools, computers, furniture, and road salt. County road commissions, transit agencies, and governmentally-owned airports have all taken advantage of the savings offered through MiDEAL.

**Alternative Energy Technologies**

Many transportation agencies at all levels have recognized the benefit of going "green" by purchasing equipment or vehicles that reduce energy use and, in the long run, save money.

The Rapid Central Station, the main transfer center for the system, was the first LEED-certified transit facility in the nation. It uses a number of environmentally-friendly technologies, including a storm water management system, a "green" roof, low-VOC paints, adhesives, and recycled building materials. The Rapid currently has five hybrid electric buses in their fleet, with plans to purchase more for use on the bus rapid transit system. The Rapid conducts an energy audit that identifies several changes that could provide big returns, such as installing LED bulbs, motion sensor-controlled lighting, or reducing air leaks.

The Suburban Mobility Authority for Regional Transportation (SMART) implemented the "Bike on Buses" Program with approximately 100,000 bike rides per year to encourage alternative commuting opportunities in heavily congested southeast Michigan.

The Mass Transit Authority in Flint, in cooperation with Kettering University and Michigan State University, has been heavily involved in researching future public transportation energy sources, such as hydrogen fuel cell technology.

Many local transit authorities have purchased alternative fuel and hybrid electric buses resulting in lower fuel costs, higher vehicle fuel efficiency, and reductions in vehicle emissions. The Capital Area Transportation Authority was the first transit system in the state to add 40 foot diesel electric hybrid buses to their fleet. The Ann Arbor Transportation Authority now operates 20 hybrid-electric buses with seven additional buses on order, a higher percentage of their fleet than any urban operator in the nation. The Mass Transportation Authority in Flint has converted several buses in their fleet to hybrid buses to save on fuel costs and reduce harmful greenhouse emissions. The Bay Area Transportation Authority in Traverse City plans on purchasing ten electric hybrid buses in 2008 and construct an electric charging station powered by wind turbines. The new hybrid buses are 30 to 40 percent more fuel efficient than the older buses scheduled to be replaced.

# Section 5: Recommended Efficiencies

Based on information from the CAC, local transportation agencies, transportation organizations, public testimony obtained from the various statewide meetings, and their own discussions, the Task Force collected a diverse and creative set of efficiency, reform, and best practice options to review. Highlighted here are those options deemed to have the highest potential to stretch existing transportation revenue.

A complete list of the efficiencies, reforms, and best practices provided to the Task Force is available by clicking "View Final Report" at www.michigan.gov/tf2.

## *Administrative Efficiencies and Reforms*

**Continue to review bonding and bond refinancing policies for possible savings.**
The sale of bonds to accelerate infrastructure construction can be an effective tool to accomplish much-needed infrastructure updates. Large bridges, such as the Mackinac, Blue Water, and International, were all funded with bonds repaid by toll-revenue streams.

In the 1990s, MDOT's bond debt load hovered between $630 million and $680 million. Since 2001, MDOT has sold several bond issues backed by future state revenue and federal funds, pushing today's debt load above $2 billion.

A debt load of this size requires active management, and MDOT closely monitors the bond market, identifying and refunding those bonds where interest savings are possible. Since 2004, MDOT has completed four bond refundings, saving nearly $20 million in transportation funds which can then be redirected to projects rather than debt service.

**Reclassify MTF Funds as "trust funds."**
Although the MTF is constitutionally dedicated to transportation, the fund is not currently considered a *trust fund* by the Michigan Department of Treasury. Reclassifying the MTF as a trust fund will allow MTF balances to earn a slightly higher rate of interest, which will generate additional revenue for transportation investment.

**Grant audit authority over road commissions and municipalities to ensure compliance with Public Act 51 of 1951.**
P.A. 51 of 1951 and P.A. 275 of 2008 authorize the Department of Treasury to conduct financial and performance audits of local road commissions and municipalities too ensure state funds received by these entities are expended in compliance with state law. In addition, MDOT audits select local transportation programs and services supported with state revenues to ensure compliance with relevant state and federal requirements. The proposed efficiency would expand audit authority to allow additional oversight responsibilities by the appropriate agencies. The benefit of this efficiency is it allows the expertise of each state agency to be used to address problem areas that may not be under the purview of the state treasurer.

**Review reporting requirements to eliminate redundancy.**
Federal and state law often includes reporting requirements for local, state, or federal transportation agencies. Reporting requirements may also be included in annual legislation for MDOT's budget. The collection, incorporation, and dissemination of this information to the various state, local, and federal entities uses limited administrative resources that could

better be used to improve program services or increase grant allocations. By eliminating redundant reporting requirements, more funding could be reallocated to transportation programs and services, which directly benefit businesses and the traveling public.

Within the passenger transportation area, for example, there are similarities in the state and federal reporting requirements, and every effort is made to avoid duplication. But federal reporting regulations for transit agencies appear to be increasing. When new federal requirements are put in place that require MDOT to seek reports from transit agencies, if MDOT already has state reporting requirements in place, every effort should be made to capture the state and federal information in one form to reduce the burden placed on these reporting agencies.

**Post all expenditures online for all to see.**
The posting of all expenditures online ensures transparency and holds the transportation agencies accountable for how public funds are spent. This option would allow taxpayers to monitor the cost of transportation services and construction costs in a user-friendly format. It would provide citizens with an oversight tool, helping to instill public trust, and improve cooperation. The benefits of this option include improving program oversight, encouraging public participation, ensuring transparency on how transportation funds are allocated and expended, reducing Freedom of Information Act (FOIA) requests; and reducing the related administrative costs.

## *Organizational Efficiencies and Reforms*

**Create corridor authorities to enhance a particular corridor.**
Corridor authorities focus resources in a particular economic development corridor that may cross multiple jurisdictions. This allows the corridor authority to identify funding sources available to improve the corridor, such as Tax Increment Financing Authorities (TIFAs) and other local-option sources that may be enabled. A corridor authority has the ability to facilitate regionalism, expedite construction, improve regional mobility, and foster economic development in high-density corridors.

**Encourage regionalism.**
There are many examples of regional transportation programs and projects currently being implemented in Michigan, too many for the scope of this report. The benefits provided by a more regional approach are many. Regionalism encourages more efficient service, innovation, better infrastructure maintenance, better use of resources, reduced congestion, and reduced overhead and administrative costs.

As an example of this, MDOT staff works with transit agencies to encourage cooperation and regional coordination. However, the role of the state in encouraging regional transit services is fairly limited.

Under current state law (P.A. 432 of 1982 and P.A. 271 of 1990), transit agencies are required to have interlocal agreements in place to operate outside of their service area. If they do not have these agreements in place, their services are subject to regulations that govern private, for-profit carriers. The primary obstacles to interlocal agreements are likely to be the pressure local transit agencies feel to provide services within the service area defined by a local millage or the cost of providing the level and frequency of service that are needed to make cross-county transit services effective.

Regionalism is an issue often raised in Southeast Michigan. Prior efforts to establish a regional transit authority in this area have failed. Currently, the Regional Transportation Coordinating Council (created under P.A. 204 of 1967) is developing a comprehensive regional service plan, including recommendations for enhanced coordination between DDOT and SMART. There is belief among many that effective regional transit in Southeast Michigan is dependent on state law to create a regional authority, with limited opt-out capabilities and regional taxation capacity.

Any additional state law or program that encourages regionalism should focus on both local transit and intercity passenger services – bus and rail. Coordination among the modes is a critical factor in regionalism. Also, within the intercity passenger services, coordination among states is very important.

Regional service could be fostered by providing ongoing financial support for regional mobility managers. Cooperation by transit agencies in a region could be assured by requiring a regional coordination plan, including a plan for a regional mobility manager, as a condition for receiving state formula operating assistance. Additional state funds would be needed to support the planning and coordination process.

**Expand use of value engineering on all projects.**
Value engineering comes in two different forms. The first form entails a contractor recommending a design plan modification that will result in reduced construction costs. The second form is encompassed in a federal requirement that when a road agency receives at least $25 million in federal project funding, the design plan must be reviewed by an outside design expert to ensure that the most cost-effective design is being used. This recommendation would require value engineering to be expanded to more projects. The benefits of this efficiency include better roads, reduced congestion, reduced vehicle maintenance costs, and construction costs savings that could be redirected to other priorities.

**Expand the Asset Management Program to include all public roads, pavement, ancillary elements, and utility location.**
Michigan's highly successful Asset Management Program is a data-driven, decision-making process that helps road agencies identify the investment needed to maximize the service life of road and bridge infrastructure. The program is currently applied (through the Asset Management Council and works closely with MDOT and local road agencies) only to the 30,000 or so miles of federal-aid eligible highways and bridges, and focuses primarily on pavement and bridge condition. Expanding the Asset Management Program to include ancillary elements such as drainage, lighting, and other features will extend the benefits of this program to other aspects of the roadway that are important to safety and to pavement condition. Expanding the program to all roads will have similar benefits. This effort will require time and much additional data will need to be gathered before it can be fully implemented, but the potential exists through this program to ensure the very best use of invested funds.

**Expand authority of the State Transportation Commission to require management standards, benchmarks, reports, and accountability for all recipients of state transportation funding as a condition of that funding.**
The powers and authority of the State Transportation Commission (Commission) is conferred by Article V, Section 28 of the Michigan Constitution of 1963 and P.A. 286 of 1964. The Constitution requires the Commission to establish policies for MDOT programs, facilities, and other public works. The director of MDOT executes the policies outlined by the Commission. In addition, P.A. 286 authorizes the Commission to award contracts for

the construction, improvement, and maintenance of highways and related transportation facilities.

Expanding the policy-making authority of the Commission to include programmatic oversight and accountability standards for programs and services that receive funding from transportation revenues would require the Commission to take a more active role on how transportation revenues are being expended and hold receiving agencies more accountable for program outcomes and outputs, thereby ensuring greater programmatic efficiency and oversight.

Any expansion of the Commission's role should not replace or duplicate the critical role played by local transportation officials. The state's role should be limited to ensuring local systems have locally established management standards and methods in place to ensure accountability to travelers and taxpayers.

**Establish performance standards for all agency operations, and use of performance factors in funding allocations.**
The current funding allocation structure for various transportation agencies is based on distribution formulas in state law. While the Task Force recognizes that most agencies work diligently to make the best use of funds and provide the best service possible for the money, improvement is always possible and should be encouraged. Adding performance benchmarks as criteria for deciding the level of funding provided to each agency would standardize procedures, encourage innovation, improve performance, hold agencies accountable for poor performance, and identify areas where improvement or training are needed.

Michigan transit agencies, for example, submit data to MDOT that allows each agency, along with their local board and residents, to review their performance over time in comparison to other Michigan transit agencies. For urban transit systems, similar data is submitted to the federal government so that Michigan transit agencies can compare themselves to peers around the country. The tools are readily available to local boards and local voters to establish appropriate performance standards for their transit systems and hold them accountable for their performance.

**Share human resources among agencies through strategic workforce planning and cross training.**
Each transportation agency performs their own human resource and strategic workforce planning functions. Sharing these functions across agencies will help eliminate duplication of effort and create savings through economies of scale. The benefits of this approach would include greater employee productivity and understanding, reduced overhead and administrative costs, along with greater innovation and regionalism.

**Re-establish state offices overseas.**
In the past, Michigan had offices overseas designed to attract new businesses to the state from those countries. These overseas offices also assisted Michigan companies in the delivery of goods and services to foreign buyers. Without these offices, smaller Michigan companies have a more difficult time competing in a global marketplace. Re-establishing state government offices overseas would help improve economic relationships in those countries, improve the flow of exported Michigan goods, encourage foreign investment in Michigan businesses, invite economic development and increase state revenues. At a time when it is clear that the marketplace for Michigan products and services is truly a global one, Michigan cannot afford not to do everything possible to facilitate international business relationships.

**Streamline wetland mitigation on state and local right-of-way.**
It is a requirement of state and federal law that transportation agencies replace wetlands impacted by highway construction. New wetlands are created to replace those that are taken at a rate of 1.5 to 2 acres for every acre of wetland destroyed. The Task Force is concerned that the definition of *wetland* may be applied too stringently and that the cost of mitigation prevents local road agencies from going forward with needed road improvements. Data is not available for the cost of wetland mitigation at the county level, but MDOT spent $2.4 million for wetlands mitigation for state road and bridge construction projects from 2006 to 2008. MDOT was able to achieve considerable cost savings through its Wetlands Banking program, which enables the department to create and "bank" wetlands for future mitigation at about one quarter the cost of a project specific wetland creation. If local road commissions were able to purchase wetlands from the state's banking program, significant savings in time and resources could be realized.

**Reinstate the Airport Service Program, All Weather Airport Access Program, Pavement Marking and Crack Sealing Program, and Airport Rescue and Training Program.**
The main purpose of the Airport Service Program is to recruit and retain airline services at Michigan's air carrier airports. The All Weather Airport Access Program funds unmanned automated weather observation stations that provide real-time weather conditions to pilots and air traffic controllers. The Pavement Marking and Crack Sealing Program has a safety component (runway marking) and preventive maintenance component (pavement preservation through early preventive maintenance treatments). The Airport Rescue and Fire Fighting Training Program provides realistic firefighting training to local rescue personnel at their "home" airport using a mobile, live, fire trainer aircraft. Currently, these programs are not funded or are funded at reduced levels, due to a lack of revenue. Reinstating them will require additional investment, but doing so will provide valuable benefits in the form of expanded air service, improved safety, reduced maintenance costs, and increased mobility and connectivity options for businesses and citizens.

## *Funding Efficiencies and Reforms*

**Ensure state match funds for all federal capital allocations.**
Throughout its deliberations, the Task Force stressed the need to provide sufficient state revenue to capture all available federal aid. Some transit capital projects are already going unmatched and MDOT projects that by 2010 there will not be enough state revenue to fully match funds for highway, road and bridge programs. If Michigan transportation agencies are unable to match federal aid, millions of dollars, and thousands of Michigan jobs, will be lost.

**Provide incentives for implementation of new efficiencies by creating a grant program or funding source to match start-up costs.**
The public comment offered by many local transportation officials noted that they strive to be as efficient with their funds as possible, and could be more efficient if they had some additional money for items such as the purchase of emerging technology. Providing incentive funding as proposed by this recommendation would allow transportation agencies to implement efficiencies to improve service or reduce administrative costs. The additional funding would motivate agencies to cooperate and share best practices, while achieving significant savings upon implementation that could be redirected to other priority programs and services. In creating these new programs, however, there should be a focus on ensuring they can remain in place after the start-up funds have been exhausted.

**Eliminate diversion of transportation funds away from transportation use.**
In the past, state government decision makers have redirected General Funds allocated to the CTF and the TEDF for non-transportation purposes. Since 1991, over $137 million has been redirected from the CTF, which has significantly impacted local transit services, programs, and funding available for state match for capital projects.

Similarly, state restricted funding that could be used for road and bridge projects has been allocated to the Departments of State and Treasury for costs associated with the collection of vehicle registrations and motor fuel taxes. In FY 2008, over $27 million was appropriated directly from the MTF to these agencies. In total, over $108 million in service fees from look-up fees, certificates, vehicle registration fees, and title fees are projected to be deposited into the Transportation Administration Collection Fund to cover administrative costs for these services. Redirecting this funding back to the MTF would increase funding for state and local road and bridge construction. Making an explicit appropriation to cover the cost of revenue collection would create an incentive to simplify and reduce the cost of these operations.

In addition to the crediting of funds to the Transportation Administration Collection Fund, vehicle registration revenues have begun to be appropriated to the Transportation Safety and Law Enforcement Fund, for use by the Department of State Police. These fees should be recovered for transportation use.

According to the most recent Auditor General report for the Use of Transportation-Related Funding (September 2008), the audit disclosed a reportable condition for the Department of Treasury, "The Department of Treasury did not allocate expenditures to the Michigan Transportation Fund and State Aeronautics Fund based on the level of activity necessary to administer and enforce the Motor Fuel Tax Act." Essentially, this finding indicates that the payments made to reimburse the Department of Treasury for motor fuel collections costs are not based on established cost allocation methodologies and it is unclear whether these payments accurately reflect actual collection costs. This finding suggests that further efficiencies could be achieved in the Department of Treasury's cost allocation plan methodology to reduce the amount of transportation revenue diverted from transportation programs and services.

**Provide incentives for performance through block grants to local transit agencies.**
The current allocation methodology for local transit agency operational costs does not include incentives to maximize services at minimal cost. Each local transit agency is allocated a fixed percentage regardless of how efficiently services are being delivered. This proposal would allocate additional funding to local transit agencies to encourage better performance. It would be designed to encourage actions that improve transit services or provide significant administrative or overhead savings. Although such a program would require additional funding, benefits would be returned through the delivery of more efficient services, sharing of innovative strategies among agencies, expansion of transit services, and policy changes that encourage and foster a mindset of continuous improvement.

**Allocate a minimum of 95% of state and federal funds to Tier 1 and Tier 2 airports.**
The Michigan Aviation System Plan designates 95 of the 235 general aviation airports as Tier 1 or Tier 2 airports. These represent the most economically beneficial airports in Michigan and they provide the majority of services for tourism, businesses, recreation, and population centers, as well as service to isolated areas of the state. Ensuring that 95 percent of state funding goes to high economic value airports would prioritize limited funding available for airports, while generating significant economic benefits.

**Allocate new or additional road funding based on vehicle miles traveled.**
Public Act 51 of 1951, as amended, currently governs the distribution of funds to transportation agencies. In the section of the Act 51 formula that distributes the county share among the 83 county road commissions, two thirds of the present formula is governed by population and vehicle-registration values, and about one-third by road mileage. The formula is not sensitive to lane-miles (road width) nor to the cost of acquiring right-of-way for road widenings. Only 6.67 percent of the formula depends on the mileage of high-cost, high-volume urban and suburban "primary" roads. The formula disadvantages counties that have urbanized since it was adopted. One way of correcting this would be to make the formula sensitive to the number of vehicle-miles traveled on each road. At present, data do not exist to do this and it would take several years and extensive expansion of data-collection efforts to make the data available.

## *Other Recommended Efficiencies*

A number of other efficiencies were discussed by the Task Force including:

- Implement "best practices" from around the country
- Expand the Construction Quality Partnership
- Amend P.A. 51 of 1951 to allow the formation of regional road agencies
- Maintain a strong public role in transit, particularly at the local level
- Adopt policies, programs, and funding incentives that increase the role of transportation officials as "mobility managers"
- Improve intermodal terminal coordination
- Stabilize funding for transit services to ensure long-term planning and extend Article IX/Public Act 51 of 1951 transportation funding protections to all CTF revenues to preclude future transfers to the General Fund
- Strengthen the role of Metropolitan Planning Organizations to enforce multi-modal "priority route" funding decisions
- Provide efficiency studies, expertise and direction to local agencies
- All agencies should provide an annual staffing level justification

A complete list of all the efficiencies, reforms, and best practices provided to the Task Force is available by clicking "View Final Report" at www.michigan.gov/tf2.

## Figure 16: Preliminary Recommendations – Efficiencies and Reforms

Key: ● = High ◕ = Medium ◔ = Low

| | Benefits | | | | | |
|---|---|---|---|---|---|---|
| | **Creates Monetary Savings** | **Fosters Economic Development** | **Improves Accountability** | **Encourages Regionalism** | **Creates Administrative Efficiencies** | **Improves Safety, Mobility or Connectivity** |
| **Administrative Efficiencies & Reforms** | | | | | | |
| Continue to review bonding/refinancing polices for savings | ● | ◕ | ◕ | ◔ | ◔ | ◔ |
| Reclassify MTF Funds as "trust funds" | ● | ◔ | ● | ◔ | ◔ | ◔ |
| Grant additional audit authority | ◕ | ◔ | ● | ◔ | ◕ | ◕ |
| Eliminate redundant reporting requirements | ◕ | ◔ | ◔ | ◔ | ◕ | ◔ |
| Post expenditures on-line | ◔ | ◔ | ● | ◔ | ◔ | ◔ |
| **Organizational Efficiencies & Reforms** | | | | | | |
| Create corridor authorities | ● | ● | ● | ● | ● | ● |
| Encourage regionalism | ● | ◕ | ● | ● | ● | ● |
| Expand use of value engineering to all projects | ● | ◕ | ● | ◔ | ◕ | ◕ |
| Expand Asset Management Program | ● | ◔ | ● | ● | ● | ● |
| Expand STC authority to establish standards | ● | ◔ | ● | ◔ | ◔ | ◕ |
| Establish performance standards for funding allocations | ● | ◔ | ● | ◔ | ◔ | ◕ |
| Share human resources & strategic planning functions | ● | ◔ | ◔ | ● | ● | ◔ |
| Re-establish state offices overseas | ◕ | ● | ◔ | ◔ | ◕ | ◔ |
| Streamline wetlands mitigation | ◕ | ◔ | ◔ | ◔ | ◕ | ◔ |
| Reinstate various Aeronautics programs | ◔ | ◕ | ◔ | ◔ | ◕ | ● |
| **Funding Efficiencies & Reforms** | | | | | | |
| Ensure state match for federal capital allocations | ● | ◕ | ◕ | ◔ | ◕ | ● |
| Provide incentives to implement new efficiencies | ● | ◕ | ◕ | ● | ● | ◕ |
| Eliminate fund diversions | ● | ◔ | ● | ◔ | ◕ | ◕ |
| Provide incentives for performance behaviors | ● | ◔ | ● | ◕ | ◕ | ● |
| Allocate minimum of 95% of state/federal funds to Tier 1 & 2 airports | ◕ | ● | ● | ● | ● | ● |
| Allocate funding based on vehicle miles traveled | ◔ | ● | ◕ | ◔ | ◔ | ● |

# Section 6: General Recommendations

While the Task Force was charged with identifying and recommending alternatives to fund transportation in Michigan, as members learned more about the issues, several important truths became clear to the group. These general recommendations are included to help make the case for a new philosophy of transportation investment that will support the economy and sustain Michigan's quality of life.

**Michigan's transportation investment needs are of such importance that doing nothing to address them is clearly not an option.**
Michigan's transportation needs are huge, and growing each day that action is not taken to address them. Without additional transportation investment, Michigan can expect a substantial decline in the state's transportation system, particularly in the condition of the infrastructure, but also in the frequency and safety of service across all modes and all jurisdictions. *Without additional state and local investment, Michigan stands to lose up to $1 billion in federal funds across the modes and more than 17,000 jobs.* Michigan cannot afford not to increase investment in its transportation system, and promptly.

**Michigan needs a multi-year approach to transportation investment that enables the state to achieve a "good" investment level in the short-term, while continuing to strive for a "better" investment level in the future as the economy improves.**
The Task Force analyzed the impact of additional investment according to two different scenarios. The more conservative of the two, described as a "good" level of investment, is still a significant increase of $3.6 billion over current investment levels. The higher investment level, described as "better," represents a stretch goal financially, but would help Michigan regain its past status as a national and world leader in transportation and - more importantly - a national and world leader economically.

At a minimum, a "good" level of investment is required if Michigan is to preserve its transportation infrastructure and service, and to sustain economic growth. A "good" investment in transportation will jump start Michigan's stalled economy, leveraging an expected $1.6 billion in federal funds, and creating or retaining 126,000 jobs per year.

As the state economy grows, transportation investment should continue to grow with it. Investing in a reliable transportation system now can help make Michigan more globally competitive and can make it possible to achieve a better level of investment in the future.

**Recognize that fuel taxes are no longer generating sufficient revenue to meet transportation needs.**
Many forces are currently eroding the revenue from motor fuel taxes. The increase in the price of gasoline, increasing numbers of fuel efficient vehicles, concern about global climate change, and changing demographics are all working together to reduce the amount of automobile travel and the amount of fuel consumed. As a result, transportation revenues are falling at a time when demand for additional and alternative transportation service is at an all time high. While the gas tax is likely to remain a viable funding source in the short term, it may not remain a viable funding source in the long-term. Alternatives to the gas tax may then be necessary if Michigan hopes to maintain and improve its infrastructure.

**Recognize that transportation provides economic benefit that merits investment beyond the revenue generated by user fees.**
Transportation shapes our society. Every item that is made, sold, or purchased is transported by one mode or another. Every man, woman, or child who goes to school, to work, or to the store uses the transportation system to get there, even if it means walking. The impact of transportation is so pervasive it can be easy to overlook its importance. Because of the importance of transportation to the overall economy, circumstances may arise which warrant investment of funds from outside the user fee revenue stream. Future transportation funding strategies will need to recognize that a highly-functioning transportation system benefits every segment of society and should be funded accordingly.

**As a partner in a federal-state-local effort to ensure adequate transportation and service, Michigan must increase state transportation investment in order to encourage and access more federal investment.**
After nearly two years of public hearings and research, the National Surface Transportation Policy and Revenue Study Commission, a federal commission created by Congress, recommended that the federal government essentially double the investment in transportation infrastructure and service.

The law authorizing federal surface transportation funding, SAFETEA-LU, is up for reauthorization in 2009. It might be tempting simply to wait for federal action to increase transportation revenue, but the Task Force surmised in its deliberations that there is no "pot of gold" waiting for Michigan's transportation system in Washington, D.C. In order to encourage federal officials to increase federal transportation investment, the state must lead by example. Increasing state revenue for transportation allows Michigan officials to make a stronger case for additional investment by the federal government during the reauthorization debate.

Even if more federal funding were available, Michigan today would be unable to take advantage of it, for lack of matching funds. Many have suggested a revenue increase at the federal level is necessary, and Michigan needs to be positioned to access that additional revenue, should it become available. Increasing state and local revenue for transportation will make it possible for Michigan to access increased federal revenue, should it become available.

**All state transportation funds should be ensured the same protection as the constitutional guarantee provided for the Michigan Transportation Fund (MTF).**
Article IX, Section 9 of the Michigan Constitution states that transportation taxes and user fees "be used exclusively for transportation purposes." Not all aspects of transportation are funded with user fees that feature this constitutional protection. Michigan's economic and budget problems have prompted the Legislature in recent years to redirect unprotected transportation revenue from the TEDF and the CTF to the state General Fund. The redirection of CTF funds took $68 million away from investment in public transportation between 2002 and 2008. Steps should be taken to ensure that the TEDF and CTF enjoy the same protection as the MTF, and to ensure that the MTF is treated as a genuine trust fund.

**Increased revenue should carry with it an expectation of increased efficiency.**
Transportation agencies must be prepared to examine how they do business and enact reforms that will save money. Many agencies have already taken innovative and cost-effective steps to improve efficiency or enhance the services they provide, but the trend must continue, particularly as more revenue becomes available for investment.

**Create incentives that encourage consolidation, coordination, or regionalization of transportation providers.**
The responsibility for investment in Michigan's transportation network is distributed to a wide variety of governmental and quasi-government agencies, including MDOT, 83 county road commissions, 535 cities and villages, 79 transit authorities, 40 specialized services agencies, 14 airport authorities, as well as county-run and private airports, bridge authorities, port authorities, and others. There is inherent inefficiency in a system with so many decision-making bodies, and the Task Force recommends that incentives be devised to encourage consolidation, coordination, and regionalization of transportation service and infrastructure provision.

**Change public policy that prohibits progress.**
The core of public policy is balancing the protection of public interests against the preservation of private rights, with common sense as the fulcrum. If the two ends are out of balance, moving the fulcrum can achieve the same result as adding to either end. Examining and changing public policy that impedes, rather than facilitates, progress is one way to move the fulcrum.

Over time, statewide policies that impact the work of transportation agencies have evolved to address a wide range of issues well beyond the core functions of these agencies. Using the resources of transportation agencies to pursue policy goals outside of transportation can increase costs for transportation agencies, or compromise the condition of the infrastructure or provision of service.

An example of this came in the wake of the collapse of the I-35W bridge in Minneapolis. MDOT worked with the FHWA to revise restrictions on the type of bridge work eligible for federal bridge funds. A solution was struck that met the outcome objectives of the FHWA, but allowed MDOT flexibility to pursue the most cost-effective bridge treatments.

The Task Force recommends that a thorough review of all policies impacting transportation agencies be undertaken and that serious consideration be given to revising or eliminating process requirements imposed on transportation agencies that are aimed at pursing objectives unrelated to transportation.

# Section 7: Aviation Funding Alternatives

Because aviation funds are collected and distributed separately from funds for the surface transportation modes, the Task Force considered these funding alternatives separately from the rest. A combination of alternatives would be required to achieve a "good" level of investment.

**ALTERNATIVE: Increase the aviation fuel tax.**
The current aviation fuel tax rate is three cents per gallon on all fuel sold or used in producing or generating power for propelling aircraft on aeronautical facilities on Michigan lands and waters. A refund of one and one-half cents per gallon is made to commercial airline operators that are operating interstate on scheduled operations.

Each one cent increase in the aviation fuel tax would yield $3.6 million. Increasing the aviation fuel tax by three cents per gallon would generate an additional $10.8 million to the State Aviation Fund (SAF). Such an increase could be implemented incrementally.

Increasing the aviation fuel tax requires an amendment to the Aeronautics Code of the State of Michigan (specifically, MCL 259.203).

**ALTERNATIVE: Increase aircraft registration fees.**
All aircraft tied down, moored, hangared, or based within Michigan are required to be registered annually. This registration requirement does not apply to aircraft engaged in scheduled passenger service flying in interstate or foreign commerce. The current aircraft registration fee is one penny per pound of maximum gross weight or maximum takeoff weight. The average airplane registration fee is currently $39, but the actual fee varies significantly with the weight of the plane being registered.

The aircraft registration fee generates approximately $287,000 per year. Taken in context with the large need for additional aviation investment, this is not a lot of revenue. But in the spirit of the conviction of the Task Force that all transportation users should pay their fair share, it is recommended that the aircraft registration fee be increased, either as a flat rate or as an *ad valorem* rate that would bring the average fee for airplane registration in line with the average fee for automobile registration.

Increasing or changing the basis of the aircraft registration fee requires an amendment to Aeronautics Code of the State of Michigan (MCL 259.77).

**ALTERNATIVE: Abolish the commercial airline refund.**
A refund of one and one-half cents per gallon of the three cents per gallon aviation fuel tax is made to commercial airline operators that are operating interstate on scheduled operations. Eliminating the airline refund would generate $3.1 million in additional revenue to the SAF.

Eliminating the airline refund requires an amendment to the Aeronautics Code of the State of Michigan (specifically, MCL 259.203).

**ALTERNATIVE: Work with Congress to increase the aviation block grant to Michigan.**
As one of only 10 states that participate in the federal block grant program, Michigan benefits by having direct control of decision-making for airport development projects. MDOT, using the prioritization system established in its Michigan Airport System Plan, and working closely with airport authorities, determines priority for distribution of federal and state airport funding throughout the state.

The state also benefits from the interest received while holding the federal block grant disbursement prior to making payments for airport projects. In FY 2005, MDOT received over $800,000 in interest.

**ALTERNATIVE: Redirect the state sales tax on aviation fuel and products - or an equivalent amount from unallocated sales tax revenue - to aviation purposes.**
State sales tax at the rate of six percent of the retail price is currently levied on sales of aviation fuel and other aviation related products (aircraft, parts, etc.). The vast majority of the revenue generated from the sales tax is either constitutionally or statutorily dedicated to the School Aid Fund or the revenue sharing for local units of government.

Sales tax collected on aviation fuel averaged about $85 million per year between 2000 and 2007. The portion of this revenue not constitutionally allocated would be 25 percent of the sales tax levied at the rate of four percent, about $14.1 million per year. Sales tax collected on other aviation related sales was $4.5 million, as reported by the Michigan Department of Treasury. The portion of this revenue not constitutionally allocated is $750,000.

Redirecting the portion of the sales tax that is not constitutionally restricted would require an amendment to the General Sales Tax Act (MCL 205.75). Redirecting the entire amount of sales tax collected on aviation products would require an amendment to the State's Constitution and accompanying statutory changes. Making a specific allocation to aviation from unallocated sales tax revenue roughly equal to the amount generated by aviation related sales could be done through an amendment to the Sales Tax Act.

**ALTERNATIVE: Convert the cents-per-gallon aviation fuel tax to a percent of sales price.** Aviation fuel is currently taxed at a flat cents per gallon rate that does not adjust with inflation or with the sometimes more rapidly increasing price of gasoline. Converting the tax to a percent of sales price would allow it to adjust with changing fuel prices. Accomplishing this would require amendment to the Aeronautics Code of the State of Michigan (specifically, MCL 259.203).

**ALTERNATIVE: Work with Congress to make reliever and super-reliever airports eligible for the same federal funding as primary airports.**
Funding for "Reliever" and "Super Reliever" airports, which handle excess general aviation traffic in busy metropolitan areas, is essential to maintain the efficiency of the national air transportation system. These airports relieve a substantial amount of air traffic from hub airports, thereby reducing delays, increasing regional capacity, reducing Air Traffic Controller workload, and increasing air traffic control efficiency. Under the current Federal Airline Administration (FAA) authorization (and continuing resolution) there is no specific funding designated for Reliever or Super Reliever airports, although they do receive the standard General Aviation Entitlement funding. Congress could make this change as part of the next FAA authorization, and include specific funding for these airports as a way to help reduce congestion at larger air carrier airports.

# Section 8: Surface Transportation Funding Alternatives

Funding for all surface transportation modes, including highways, roads, bridges, transit, passenger rail, freight rail, and others, are distributed through the MTF. Revenue to the MTF currently comes from user fees such as motor fuel taxes and vehicle registration fees. The Task Force considered alternatives involving both user fees and non-user fees, as directed by P.A. 221. A combination of alternatives would be required to achieve a "good" level of investment.

**ALTERNATIVE: Increase vehicle registration fees.**
Vehicle registration fees remain a reliable mechanism for funding transportation, but need to be increased in light of the pressing need for greater investment in roads, bridges, and transit systems. The Task Force considered several means of accomplishing this over time:

> Increase registration fees by an *ad valorem*, or value-based rate. Increasing registration fees by a set percentage at the existing value-based rate would yield additional revenue. A 10 percent increase would be expected to provide about $86 million in additional revenue per year.
>
> Increase registration fees by a flat rate. Each dollar increase in the annual registration fee generates an estimated $8 million in additional revenue for investment.

Either of these changes could be accomplished with legislative amendment to the Motor Vehicle Code (MCL 257.801).

**ALTERNATIVE: Eliminate registration discounts.**
One of the guiding principles endorsed by the Task Force was the notion that everyone who benefits from the transportation system needs to contribute to the transportation system. At a time when funding for transportation is so urgently needed, it makes sense to close all the loopholes in current law that have offered registration discounts to some users under certain circumstances. The Task Force recommended these discounts be eliminated:

> Eliminate the three 10 percent reductions in the registration fee.
> Autos and light trucks pay an annual registration tax of $8.00 plus half of one percent of the base price in the first full year of registration. This tax is reduced by 10 percent per year in each of the next three years, and then remains at $8.00 plus 0.3645 percent of the base price. Since the registration fee is a road user fee and not a property tax, there is no reason why the fee should decline with the value of the vehicle.
>
> The three step discount might be abolished on newly purchased vehicles only, to spare owners of existing vehicles from an unanticipated increase in registration fees. This increase would require over 13 years for full effect, as the vehicle fleet is replaced and ages over four years, and would yield an estimated $51 million per year after the third year. Another alternative would be that all auto and light truck registration taxes might revert back to the half percent rate that owners paid in the vehicles' first year. This would be equivalent to about a 27 percent increase in registration taxes on four year

and older cars and would yield an estimated $135 million per year upon enactment.

Eliminate registration discounts for specific industry groups. Trucks hauling agricultural goods, milk, and logs may be registered at a fraction of the usual fee charged for trucks by elected gross weight. This discount was originally intended for farm trucks used only during harvest season, but has been extended to all unprocessed agricultural commodities, milk, and logs. While the foregone revenue is not large, probably under $2 million per year, the discounts are a precedent for extension to other users. It is unfair to charge higher road-use fees to some industries than others.

Collect increased registration fee upon plate transfer to a higher value vehicle. When vehicle buyers transfer license plates from an old car to a new one, they pay only an $8.00 plate-transfer fee that does not benefit the MTF. Michigan's registration fee on the value of the new vehicle - which is typically higher than on the old vehicle - is not collected until the first renewal after purchase. This delay in collecting the increased fee reduces transportation revenues by $24 million per year.

To accomplish these changes would require an amendment to the Motor Vehicle Code (MCL 257.801).

**ALTERNATIVE: Adjust motor fuel taxes.**

Michigan's per gallon motor fuel taxes (19 cents per gallon for gasoline and 15 cents per gallon for diesel fuel) currently provide about half the revenue to the MTF. Michigan's per gallon motor fuel taxes have not increased in ten years, and were not increased for ten years prior. However, the cost of providing transportation infrastructure and service increases every year. This helps explain why underinvestment in transportation is an ongoing problem in Michigan. Transportation systems are too important to the economy and the general quality of life to allow this trend to continue.

While the motor fuels tax has become a less reliable source of revenue in recent years, and is not expected to be viable as a source of revenue over the long term, it is currently the most efficient means of raising much needed revenue for transportation. The Task Force considered several options for increasing motor fuel taxes over time.

Convert the cents per gallon motor fuel tax to a percent of sales price. Motor fuels are taxed at cents per gallon rates that do not adjust with inflation or price. Converting the tax to a percentage of sale price would allow revenues to rise or fall with changing fuel prices. At October 2008 prices, if 4.5 billion gallons per year of gasoline at $2.30 (before the tax) and 0.9 billion gallons of diesel fuel at $3.20 per gallon were taxed at a percentage of price, each one percent would yield $103 and $29 million per year, respectively. This could be accomplished with amendments to the Motor Fuel Tax Act (MCL 207.1008) and the Motor Carrier Tax Act (MCL 207.211). An amendment to P.A. 51 [MCL 247.660(1)(d)] would also be required to remove reference to per gallon revenues from the MTF distribution formula.

Enact a flat cents per gallon increase. Each penny increase in the motor fuel tax would raise $46.5 million from gasoline and $9.8 million from diesel for

investment in transportation systems, including highways, roads, bridges, and transit systems.

Take phased-in approach to increases.
Increasing the cents per gallon motor fuel tax could also occur over time, in a pennies per year arrangement that would provide additional revenue to keep pace with rising cost.

Any of these changes could be accomplished with an amendment to the Motor Fuel Tax Act (MCL 207.1008).

**ALTERNATIVE: Equalize diesel and propane tax rates with gasoline.**
As previously noted, the tax rate for diesel fuel is 15 cents per gallon, as is the tax rate for propane. Increasing these tax rates to 19 cents per gallon, as is the rate for gasoline, improves the equity of contribution by users of the transportation system, in keeping with the guiding principles of the Task Force.

Each penny increase in diesel and propane tax rates would yield $10 million annually. It would require an amendment to the Motor Fuel Tax Act (MCL 207.1008).

**ALTERNATIVE: Abolish 1.5 percent cost of collection allowance on gasoline.**
One and one-half percent of Michigan's 19 cent gasoline tax is left uncollected. This formerly covered cost was incurred by retailers when fuel tax was collected at the retail level, but these payments are now made automatically by fuel wholesalers at a negligible cost. The discount leaves only 18.715 cents per gallon available for investment in transportation for every 19 cents per gallon of gasoline taxes paid by motorists (no discount exists for diesel fuel). Abolishing this discount is the equivalent of a 1.5 percent gasoline tax increase, yielding an additional $13 million per year.

Eliminating the 1.5 percent cost of collection allowance on gasoline would require and amendment to the Motor Fuel Tax Act (MCL 207.1014).

**ALTERNATIVE: Enact measures to control costs that are paid for with transportation funding through Inter-Departmental Grants (IDGs).**
Currently, there are transfers of road user fees to departments of state government that cover the costs of collecting vehicle registration fees and fuel taxes, environmental permits, motor-carrier registration enforcement, State Police operations, and personnel and other routine services provided to MDOT. Some funds are credited automatically, with no legislative oversight over costs; others are made in yearly interdepartmental grants (IDGs). The Task Force recommends reducing interdepartmental transfers of transportation funds by 10 percent per year over the next five years, by pursuing alternative business models for these administrative functions.

**ALTERNATIVE: Increase sales and use tax one percent and dedicate that additional revenue to transportation.**
Transportation, as noted previously, enhances the quality of all our lives and provides enormous benefits to residents, businesses, and visitors. A modest increase in the sales and use tax, dedicated to transportation, would accomplish several important things. First, it would provide a reliable revenue stream that could, in time, help replace the gas tax, as

sales tax revenue has increased every year except 2003 when it was stagnant. Next it expands the concept of "users pay" to "beneficiaries pay," recognizing the breadth of benefits transportation brings to all aspects of our lives. Finally, it utilizes an administrative mechanism that is already in place, which has the advantages of efficiency and relatively quick implementation.

Another option would be to increase the sales and use tax, but give Michigan residents a credit on their income tax, to ensure that the revenue captured comes from non-residents.

Increasing the sales and use tax by one percent and dedicating those funds to transportation would provide an estimated $1.3 billion in additional funds, although this amount would be reduced if an income tax credit were created.

Changes to sales and use tax would require an amendment to the State Constitution as well as accompanying statutory changes to the General Sales Tax Act (MCL 205.52 and 205.75) and giving residents an income tax credit would require an amendment to the Income Tax Act of 1967.

**ALTERNATIVE: Direct all or a portion of the sales tax on fuel to the MTF.**
The Michigan Constitution spells out that revenue generated by motor fuel taxes should be used for transportation. One of the guiding principles of the Task Force has been that all revenue generated by transportation should be reinvested in the transportation system. This year Michigan has seen record increases in the price of gasoline, causing the public to travel less, thereby reducing motor fuel tax revenues. However, the sales tax on motor fuel is based on a percentage of the fuel price per gallon, which increases as the price of gasoline goes up.

The sales tax on motor fuels is estimated to generate more than $800 million in FY 2008. This revenue is generated by transportation users and should be reinvested in transportation systems.

Redirecting all of the sales tax collected on motor fuel sales (or any portion that is currently constitutionally allocated) would require an amendment to the State Constitution and accompanying statutory changes. Redirecting only the portion that is not constitutionally restricted would require an amendment to the General Sales Tax Act (MCL 205.75).

**ALTERNATIVE: Redirect all or a portion of the Natural Resources Trust Fund to transportation.**
The Natural Resources Trust Fund was established in 1984 and governs rents and royalties from private oil, gas, and mineral exploration on state owned lands. These changes are embodied in Article IX, Section 35 of the Michigan Constitution. Over time, voters have approved other changes to Section 35, consistently in the direction of adding more revenue (or stopping diversions) and making the use of funds more restrictive.

During FY 2007, just over $43 million was generated from mineral royalties levied largely on oil and gas. After appropriation of $14 million for state and local grants (as permitted by law), and transfer of $10 million to the State Parks Endowment Fund, the remaining $19 million was deposited into the Natural Resources Trust Fund, bringing its total balance to $345 million. The balance will continue to grow to $500 million (as approved by voters), at which point direct appropriations cease and all grants are made from interest earnings on the $500 million total balance.

The Task Force recommends that a portion of this revenue be used for transportation purposes, particularly for improvements related to recreational transportation such as development of multi-use trails or bikeways. Depending on the amount of revenue to be redistributed, a Constitutional amendment would likely be called for to accomplish this.

**ALTERNATIVE: Encourage local investment in transportation by enabling a broad spectrum of local revenue options statewide.**

Local transportation agencies already make a significant contribution to transportation investment, but as state and federal partners increase their participation, local governments must be prepared to do the same. The legislature needs to enact enabling legislation that provides local transportation providers with a full array of financial tools to stimulate this investment. The Task Force considered the revenue potential of county registration fees and county driver's license fees, and concluded these are reasonable options to generate transportation revenue at the local level.

Other local options, such as local fuel taxes, need to be enacted on a regional level, rather than county-by-county. One public comment suggested allowing a region-wide, seasonal local fuel tax to provide additional revenue for winter maintenance. There is also a need to enable corridor authorities to raise revenue along a certain alignment for a particular project that may span multiple counties or municipalities.

**ALTERNATIVE: Enable Public-Private Partnerships (P3s) for toll-financed reconstruction, expansion or new construction of freeways or other transportation systems.**

Major projects may be procured from consortia of private firms who finance, design, build, operate, and maintain the roads or transit systems for decades into the future. Tolls and fares might cover much or all of life-cycle costs now paid for from user fees and taxes, and private debt or equity might replace public funds. Enabling P3s could preclude the need for several billion dollars worth of expenditure from MDOT's user fee funded program.

A new act would be needed to establish clear authority for procurement through agreement with public-private partners. This would be in addition to the amendment needed to enable tolls.

**ALTERNATIVE: Enable toll-financed reconstruction, expansion, or new construction of freeways.**

Michigan needs to reconstruct aging urban freeways and add lanes to commuter and intercity routes. This will require multiple projects costing over $1 billion each. The possibility of paying for these projects with existing revenues does not exist. Conversion of some freeway segments to toll roads can make these projects affordable by dedicating a stream of user fees to the roads on which the fees are collected. The additional option of dynamic pricing can price traffic jams out of existence by offering discounted travel in off-peak hours.

Toll finance requires an amendment to Michigan highway law enabling MDOT to collect tolls, and to Act 51 crediting tolls to a fund for roads. Amendments to the Vehicle Code enforcing tolls are also needed.

# Section 9: Miscellaneous Reforms

These reforms were suggested late in the Task Force process and were not weighed simultaneously with other suggestions, but the Task Force offers them for consideration by transportation agencies and the Michigan Legislature:

**Impose an Impact Fee for Lane Closures.**
Persons or agencies needing to close some or all lanes of a road might pay a permit fee proportional to the cost of delays and detours imposed on road users. Builders and land developers, underground and overhead utilities, parades and events, and other actions that require closure of part or all of a road could be subject to fees that correspond with traffic and delays created from the lane closures.

Necessary one-time closures might be free for the first few hours or days, to encourage speedy construction of driveways or utilities adjacent to roads. Closures for construction mandated by the road agency (such as turn flares) would not incur a fee. Low fees between 10:00 PM and 6:00 AM could encourage off-peak closures. Fees for excessive or repeated closures might rise steadily, to encourage utilities and others to find alternatives that do not require closure of roads.

**Pilot Rest-Area Public/Private Partnership.**
Leasing commercial sites in freeway rest areas could relieve MDOT of the cost of these facilities, while generating lease revenue. Maintenance of rest areas has already been privatized, but commercial leaseholds are prohibited by state law and federal law and regulation. MDOT might request waivers of these regulations for a pilot project at a location on a non-Interstate freeway, where the cost of rest area reconstruction might be saved and impacts to nearby restaurants can be avoided.

**Create a Standing Commission to Review Revenue Adequacy and Asset Condition.**
Transportation is not significantly different from the energy and communication utilities regulated by the Michigan Public Service Commission (MPSC). The MPSC sets rates so as to assure adequate service, capital expansion, and return on investment.

This proposal suggests similar MPSC powers be given to the State Transportation Commission or a special commission to review the adequacy of transportation revenues and infrastructure conditions and provide recommendations to the Legislature for all modes of transportation.

The commission could recommend adjustments to user fees to assure debt coverage, safety, prevention of deferred maintenance, continue levels of service, and allow appropriate expansion. Road and transit agencies could make a case for user fee rates based on the state of their assets. The cost of capital projects could be included in the road and transit user "rate base" by the commission, similar to a hospital certificate of need.

The revenue commission would not set user fees administratively, although this might be possible. Article IX, Sections 1 and 2 of the Michigan Constitution restrict taxation to the legislature, but recent law defining taxes and fees makes it clear that the fuel "tax" is really a fee. It is not clear whether the vehicle registration fee is a fee or a tax.

# Section 10: Return on Investment

Before any revenue increases are put forward, the Task Force believes transportation agencies should wring every possible efficiency from the resources already provided. Michigan's transportation agencies have documented many of these efficiencies, which can be found in Section 4 of this report. Additional efficiencies are recommended in Section 5.

The Task Force also acknowledges that we cannot achieve the "good" level of investment by efficiencies alone, and some increase in user fees is unavoidable. The economic benefits and consumer returns on investment outlined in this section are quantifiable economic benefits and tangible cost savings for Michigan households which can blunt the impact of revenue increases and potentially forestall further increases.

**Economic Benefits**

One of the best ways to stimulate the economy is through infrastructure investment. Consider these job creation figures:

- One job is created or sustained for every $70,500 invested in highway and bridge infrastructure
- More than 300 jobs are created or sustained for every $10 million spent on transit capital investment
- 570 jobs are created or sustained for every $10 million spent on transit operations
- 43 jobs are created or sustained for every $1 million invested in aviation construction

Investing at the identified "good" and "better" levels could create or sustain as many as 80,000 to 200,000 additional jobs, while the "do nothing" option would result in substantial job losses.

**Figure 17: Jobs Created/Sustained for Each Investment Scenario**

| Scenario | Aviation | Highways, Roads, and Bridges | Intermodal Passenger | Intermodal Freight |
|---|---|---|---|---|
| Current | 1,900 | 32,000 | 12,200 | 200 |
| Do Nothing | (416) | (13,532) | (3,516) | (N/A) |
| Good | 3,800 | 87,000 | 35,100 | 250 |
| Better | 5,200 | 179,000 | 59,000 | 600 |

Tangible cost savings can be expected from improved travel time and from improved surface condition which lowers vehicle maintenance costs. As an example, MDOT, through the University of Michigan, undertook extensive economic analysis of the benefits of MDOT's Multi-Modal Five Year Transportation Program. The result: Over $100 million per year in cost savings for Michigan businesses and residents from reduced travel time. This is a fraction of the $2.3 billion in congestion costs that Michigan drivers experience annually, but it is definitely a start.

Additional benefits include expected personal income increases as a direct result of highway and bridge investment. Investing at an annual level of $6.1 billion could add $3.5 billion in personal income and generate an additional $5.3 billion in the Gross State Product (GSP) annually.

Safety improvements will begin to reduce the $2.1 billion in costs incurred from crashes. Medical costs and property damage will decline, paving the way for lower insurance costs for everyone.

The table below summarizes the economic benefits to Michigan of investing at the "good" level.

**Figure 18: Summary of Economic Benefits at the "Good" Level**

| Benefit | Economic Benefit |
|---|---|
| Value of Travel-Time Saved (households)[1] | $69 Million / year |
| Value of Travel-Time Saved (businesses) [1] | $47.6 Million / year |
| Reduced Vehicle Maintenance Costs[2] | $2.5 billion / year |
| Improved Safety[2] | $1.9 billion / year |
| New Jobs Created[1] | 80,000-200,000 |
| Annual Increased Personal Income[1] | $3.6 Billion in 2007 |
| Annual Increase Gross State Product[1] | $9 Billion |

Benefits computed from data found in: [1] "Economic Benefit of MDOT's Five Year Program," Economic Development Research Group and University of Michigan's Institute of Labor and Industrial Relations, July 2007
[2] "Paying the Price for Inadequate Roads In Michigan," The Road Information Program, May 2007

Similar benefits can be found for transit and aviation system investments. The Detroit Metro and Willow Run airports alone contribute $7.8 billion in economic activity and over $2 billion in annual income.[17] Increasing aviation investment to the "good" level will support an additional 3,800 jobs and leverage $146 million in federal aid. That is $146 million less in user fees that Michigan would need to raise.

It has also been stated that every dollar invested in transit results in six dollars of economic development, usually through higher property values in the area surrounding transit systems.[18] With an annual investment of $773 million, Michigan can expect to see economic benefit of $4.4 billion and support for more than 35,000 jobs.

**Consumer Benefits**

Drivers are keenly aware of the costs they incur to register or fuel their vehicles. What is not as apparent are the costs incurred in an underperforming transportation system. The Transportation Information Program reports that congestion, poor pavement condition, and crashes cost Michigan drivers a total of $7 billion annually. These costs are in the form of wasted fuel, lost time, vehicle operating and maintenance costs, medical costs, lost productivity, and property damage, but they can be offset by raising the level of investment.

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[17] *Aviation report to TF2 found at: http://www.michigan.gov/tf2*
[18] *Intermodal Passenger report to TF2 found at: http://www.michigan.gov/tf2*

The Task Force discussed two ways in which consumers could benefit from increased investment: tangible returns from higher levels of investments and a refund of user fees through tax credits or reductions in other user fees.

### Return on Investment to Households

Although many of the benefits described accrue to the economy as a whole, households would notice substantial savings. Investment in highways, roads, and bridges at the "good" level will return each household at least $20 in travel time costs and potentially $900 of personal income each year.[19] Drivers could see maintenance costs fall by $360 to $520 annually, with the greatest reductions found in urban areas.

The FHWA has found that every $100 million spent on needed highway safety improvements will result in 145 fewer traffic fatalities over a 10 year period. Under the "good" scenario, an additional $114 million per year would be targeted to improve highway and bridge safety. Using FHWA's figures, 15 more Michigan travelers will return safely to their loved ones each year.

**Figure 19: Potential Investment Return to Households "Good" Investment Level[20]**

| Source of Investment Return | Potential Per Household Return |
|---|---|
| Travel time saved | $ 20 per year |
| Reduced vehicle maintenance costs | $ 600 per year |
| Increased personal income | $ 900 per year |
| Improved safety | $ 500 per year |
| TOTAL CONSUMER SAVINGS | $ 2,020 per household per year |

### Income Tax Credit

To further reduce the consumer burden, the Task Force proposed an income tax credit to return 50 percent of the revenue raised to Michigan taxpayers. This proposal would ensure that more of the costs fall to temporary visitors and interstate travelers. Another option would be to eliminate or reduce one user fee when a new user fee is added.

### Summary

To summarize, increasing user fees will have a real and immediate impact on Michigan transportation users. However, the investment funded by those fees will further stimulate Michigan's economy and create tangible returns for Michigan households.

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[19] *Based on approximately 3.8 million households*

[20] *Derived from data provided in: "Economic Benefit of MDOT's Five Year Program," Economic Development Research Group and University of Michigan's Institute of Labor and Industrial Relations, July 2007; and "Paying the Price for Inadequate Roads In Michigan," The Road Information Program, May 2007*

# Section 11: Conclusion

In her first State of the Union address, Governor Jennifer Granholm paraphrased the words of Pete Silas, former Chairman and CEO of Philips Petroleum Company, who said "We cannot wait for the storm to blow over; we must learn to work in the rain." She was talking about the Michigan economy.

That storm has still not blown over, although the people of Michigan have been working in the rain for several years, and gallantly. To continue the analogy, the weather nationally has taken on a sharp and sudden chill. It seems inevitable that the rain will turn to snow. Perhaps severe snow.

But one thing the people of Michigan excel at is digging out from under a big snow. Everyone – the neighborhood, the community, the entire state – bundles up and pitches in. They bring whatever tools they have at their disposal. They all contribute by making their best, most responsible effort. Only by working together can they clear the way for everyone.

This report proposes making significant investment in transportation. It is an investment that will create jobs and economic opportunity, attract business, improve property values, increase revenue, help the environment, and ultimately save taxpayer dollars. It is an investment worth making, particularly in light of the storm that is upon us.

This investment will require a contribution from everyone who uses transportation. It will require all the tools we have available, and some new ones that have yet to be crafted.

If everyone contributes, if we work together to give our best, be our most responsible, we can make it happen. This significant investment in transportation can help Michigan dig out from under the snow. We can set an example for the rest of the nation, show them how it's done, and reclaim our place as a national economic leader once again.

## Section 12: List of Appendices

PA 221

Summary of Public Comment

Complete List of All Funding Alternatives Considered

Complete List of All Efficiencies, Reforms, and Best Practices

CAC Aviation Needs Report
- Aviation Appendix A, Detroit Metro
- Aviation Appendix B, Willow Run
- Aviation Appendix C, MASP
- Aviation Appendix D, Pavement Management
- Aviation Appendix E, Fuel Tax Options

CAC Highway, Road, and Bridge Needs Report

CAC Intermodal Passenger Needs Report
- Passenger Appendix A, CTF
- Passenger Appendix B, Maps
- Passenger Appendix C, Donigan

CAC Intermodal Freight Needs Report

CAC Aviation Efficiencies Report

CAC Highway, Road, and Bridge Efficiencies Reports 2 and 3

CAC Intermodal Passenger Efficiencies Report

MDOT Efficiencies Report

*All appendices can be accessed by clicking "View Final Report" at www.michigan.gov/tf2.*

# Report on Michigan Department of Transportation's Maintenance of Effort Calculation

**Prepared for the Michigan Department of Transportation**

**By**

**KPMG Corporate Finance, LLC**


**April 23, 2009**

## I. Introduction

The Michigan Department of Transportation ("MDOT") engaged KPMG Corporate Finance LLC ("KPMG") to assess the application of the formula used in MDOT's calculation for determining Maintenance of Effort ("MOE") for eligibility of toll credits under TEA-21 and SAFETEA-LU. This document describes the scope of the project, background of the MOE determination as it relates to toll credit eligibility, MDOT's method for calculating their MOE determination, and observations related to MDOT's method.

This engagement is not intended to be an audit, examination, attestation, special report or agreed-upon procedures as those services are defined in American Institute of Certified Public Accountants (AICPA) literature applicable to such engagements conducted by independent auditors nor should this in any way be construed as a legal opinion. Accordingly, this is not a communication to third parties by KPMG Corporate Finance LLC directly reporting on financial data or internal control or expressing a conclusion or any other form of assurance.

## II. Scope & Approach

The scope and approach of this engagement is the following:

1. **Document MDOT's current method of calculating their MOE determination.** In documenting MDOT's method of calculating of their MOE determination, the scope of work includes:
    a. Understand the policies, relevant statutes, and guidelines in place that impact MDOT's method of calculating their MOE determination, and
    b. Document the historical method of calculating MDOT's MOE determination, including relevant FHWA approval(s) of MDOT's method, change(s) to their method, and FHWA approval(s) of change(s) to their method.
2. **Comment on MDOT's method of calculating their MOE determination, in accordance with FHWA guidelines and correspondence.** In commenting on MDOT's method of calculating their MOE determination, the scope of work includes:
    a. Understand the inputs used by MDOT in calculating their MOE determination;
    b. Assist MDOT to assess the consistency of their method of calculating MOE determination with stated MDOT and FHWA guidelines; and
    c. Provide comments, if appropriate, on the calculation of their method, in accordance with FHWA guidelines.

KPMG Corporate Finance LLC disclaims any intention or obligation to update or revise these observations whether as a result of new information, future events or otherwise. Should additional documentation or other information become available which impacts upon the observations reached in this document, we reserve the right to amend our observations and document accordingly.

## III. Background

Under TEA-21, we understand a state is permitted to use certain toll revenue expenditures as a credit toward the non-Federal matching share of programs authorized by Title 23 and for transit programs by Chapter 53 of Title 49.[1] In order to earn credits for certain toll revenue expenditures, FHWA guidance notes that a state must satisfy the MOE determination which provides guidance on calculating a state's eligibility for toll credits.[2] Importantly, MOE does not determine the actual amount of toll credits a state may receive.

**MOE Determination Rule**

The MOE determination is an assessment of a state's non-Federal transportation capital expenditures over a four-year period. In general, the MOE determination looks at a four-year period and requires that the amount of non-Federal transportation capital expenditures in the last year exceeds the average amount of non-Federal transportation capital expenditures for the three prior years.[3]

**Non-Federal transportation capital expenditures**

In accordance with FHWA guidance, the calculation of non-Federal transportation capital expenditures must include those capital expenditures that help build, improve or maintain public highways and the calculation must not include any routine maintenance.[4] At a minimum, the calculation must include *state* capital expenditures for public highways and the calculation can also include capital expenditures made by toll authorities or local officials (e.g., cities, counties) for public highways. Additionally, the calculation can include capital expenditures made by the state or local officials for transit systems. To ensure consistency in the calculation, we understand that the FHWA requires that expenditures included in the first MOE determination be included in all subsequent MOE determinations.[5]

**Four-year period calculation**

Prior to 1995, the MOE determination included the four years prior to the year in which credit eligibility is being determined.[6] For example under this methodology, in order to determine its eligibility for credits in federal fiscal year (FFY) 2009, a state would examine FFY 2008, FFY 2007, FFY 2006, and FFY 2005 and require that the state's FFY 2008 non-Federal transportation capital expenditures exceeded the average amount of the state's non-Federal transportation capital expenditures for FFY 2007, FFY 2006, and FFY 2005. This method is still allowable under FHWA guidelines and is now known as MOE Alternate 1.

In 1995, the FHWA revised its guidance to allow states to potentially take greater advantage of the toll credits provision by broadening its MOE determination to include two alternate methods of determining

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[1] 23 U.S.C. § 120(j)(1)(A)

[2] 23 U.S.C. § 120(j)(2)(B)

[3] *Id.*

[4] USDOT, FHWA, Memorandum: Toll Credit for Non-Federal Share, Section 1111(c) of TEA-21, Implementing Guidance dated August 7, 1998 available at http://www.fhwa.dot.gov/tea21/tollcred.htm

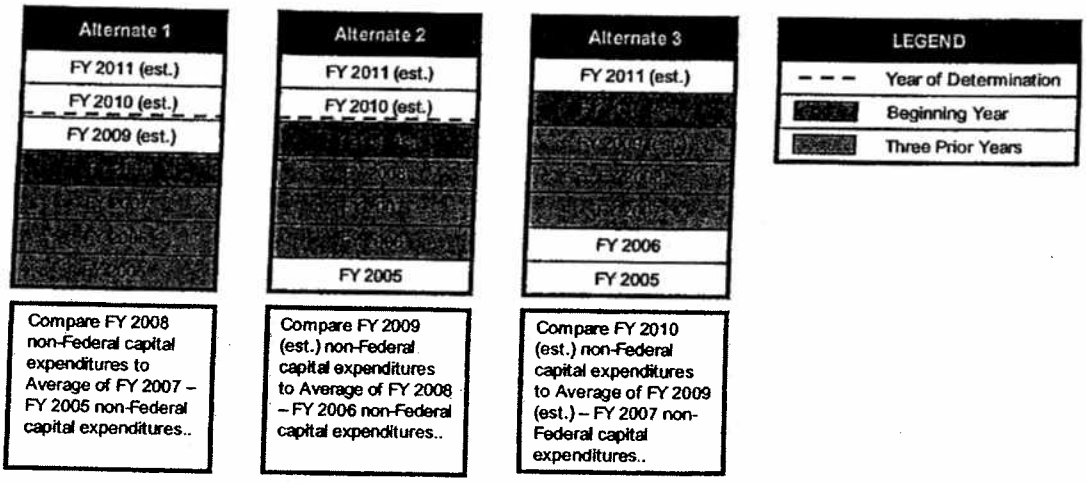
[5] *Id.*

[6] USDOT, FHWA, Memorandum: Toll Credit for Non-Federal Share, Section 1905 of SAFETEA-LU dated February 8, 2007 available at http://www.fhwa.dot.gov/specialfunding/020807.cfm

eligibility in addition to the original method described above.[7] As a result, we understand from the FHWA guidance that states now have three alternates in the MOE determination – MOE Alternate 1 as described above, and MOE Alternate 2, and MOE Alternate 3:

- MOE Alternate 2 uses the four-year period beginning three years prior to the FFY in which toll credit eligibility is being determined. If a state is determining its eligibility for credits in FFY 2009, it would examine FFY 2009, FFY 2008, FFY 2007, and FFY 2006 and require that the state's anticipated FFY 2009 non-Federal transportation capital expenditures exceed the average amount of the state's non-Federal transportation capital expenditures for FFY 2008, FFY 2007, and FFY 2006.[8]
- MOE Alternate 3 uses the four-year period beginning two years prior to and extends one year after the FFY in which toll credit eligibility is being determined. If a state is determining its eligibility for credits in FFY 2009, it would examine FFY 2010, FFY 2009, FFY 2008, and FFY 2007 and require that the State's anticipated FFY 2010 non-Federal transportation capital expenditures exceed the average amount of the State's non-Federal transportation capital expenditures anticipated for FFY 2009, and non-Federal transportation capital expenditures FFY 2008, and FFY 2007.[9]

The following chart outlines the three alternatives:




MOE Alternate 2 requires a state to estimate current FFY non-Federal transportation capital expenditures in its MOE determination. Likewise, MOE Alternate 3 requires a state to estimate current and future FFY non-Federal transportation capital expenditures in its MOE determination. In the event that a state is eligible for toll credits using MOE Alternate 2 or MOE Alternate 3, the state must certify its non-Federal

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[7] *Id.*

[8] USDOT, FHW, Memorandum: Toll Credit for Non-Federal Share, Section 1111(c) of TEA-21, Implementing Guidance dated August 7, 1998 available at http://www.fhwa.dot.gov/tea21/tollcred.htm

[9] *Id.*

transportation capital expenditures once they have been expended.[10] We understand that should the state fail to expend the amount of non-Federal transportation capital expenditures previously estimated in its MOE determination, any credit earned based on the MOE determination would be lost and the state would required to replace any Federal funds with state funds on projects where this credit has been used.[11]

In 1998, the FHWA revised its guidance to allow states even greater flexibility in its MOE determination.[12] Referred to as the "2-year rule", it provides states the opportunity to account for large spikes in capital expenditures that could skew the MOE determination unfavorably. This flexibility concerns the 3-year average used in the MOE determination. Normally, the MOE determination compares the fourth year of a 4-year period against the average of the three previous years. Under the special 2-year rule, if any one of the three previous years exceeds the average of the other two years by 130 percent, then that year can be dropped from the 3-year average computation and instead the average would be based on only the two remaining years.[13] This would result in the fourth year of a 4-year period being compared to the average of the two previous years.

## IV. MDOT's MOE Determination

Interviews with MDOT personnel indicated that MDOT employs a staff member responsible for the calculation of MDOT's MOE determination. MDOT staff provided KPMG access to the policies, procedures and other documentation relevant to MOE determination maintained by MDOT. This documentation includes:

- statutes and regulations related to the calculation of the MOE determination;
- FHWA guidelines for calculating the MOE determination;
- correspondence between MDOT and FHWA regarding toll credits and the MOE determination;
- MDOT meeting minutes regarding MOE calculation;
- notes of personnel regarding MOE determination; and
- internal policies regarding the definition of construction, heavy maintenance and routine maintenance.

Relevant statutes and guidelines were collected and considered. Statutes and guidelines considered include, but are not limited to

- Section 1111(c) of the Transportation Equity Act for the 21st Century (TEA-21)
- 23 U.S.C. 120(j), Section 1044 of ISTEA

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[10] *Id.*

[11] *Id.*

[12] USDOT, FHWA, Memorandum: Toll Credit for Non-Federal Share, Section 1905 of SAFETEA-LU dated February 8, 2007 available at http://www.fhwa.dot.gov/specialfunding/020807.cfm

[13] 23 U.S.C. § 120(j)(2)(B)

- FHWA Memorandum: Toll Credit for Non-Federal Share, Section 1905 of SAFETEA-LU, dated February 8, 2007
- FHWA Memorandum: Toll Credit for Non-Federal Share, Section 1111(c) of TEA-21, Implementing Guidance, dated August 7, 1998
- FHWA Memorandum: Section 1044 of the ISTEA, Credit for Non-Federal Share – Modification of Implementing Guidance, dated April 3, 1995
- FHWA Memorandum: Section 1044 of the ISTEA, Credit for Non-Federal Share – Implementation Questions and Answers, dated September 2, 1992
- FHWA Memorandum: Section 1044 of the 1991 ISTEA – Credit for Non-Federal Share, dated June 22, 1992

Additionally, MDOT has documented its method for toll credit eligibility and provided KPMG access to this documentation.

## V. Observations

**Observation 1:**

Based on information provided by MDOT, including the Statewide Expenditures Report at the state and county level, internal policies and guidelines it appears the MOE determination was performed in accordance with MDOT policies and FHWA guidelines for FFY 2008, FFY 2007, FFY 2006 and FFY 2005.

**Summary:**

In its MOE determination, MDOT compared the total state and county non-Federal transportation capital expenditures for a given FFY with the average total state and county non-Federal transportation capital expenditures for the three previous FFYs. If the total state and county non-Federal transportation capital expenditures exceeded the average total state and county non-Federal transportation capital expenditures for the three previous FFYs, then MDOT concluded that it passed the MOE determination.

MOE Determination

| FY | Capital Expenditures | | | Prior 3 Year Average | MOE Met Under 3 Year Average? | 2-Year Rule Apply? |
|---|---|---|---|---|---|---|
| | State | County | Total | | | |
| 2000 | 403,712,011 | 325,605,765 | 729,317,776 | 610,247,791 | Yes | N/A |
| 2001 | 517,132,363 | 338,977,287 | 856,109,650 | 701,166,386 | Yes | N/A |
| 2002 | 585,148,050 | 362,043,917 | 947,191,967 | 789,442,346 | Yes | N/A |
| 2003 | 494,889,352 | 350,055,606 | 844,944,958 | 844,206,464 | Yes | No |
| 2004 | 386,543,984 | 335,653,537 | 722,197,521 | 882,748,859 | No | No |
| 2005 | 430,656,411 | 344,413,553 | 775,069,964 | 838,111,482 | No | No |
| 2006 | 424,030,949 | 356,470,438 | 780,501,387 | 780,737,481 | No | No |
| 2007 | 391,462,550 | 319,861,486 | 711,324,036 | 759,256,291 | No | No |

*Source: All figures and calculations provided by MDOT*

**Impact:**

MDOT passed MOE determination and is eligible for toll credits in FFY 1995 – FFY 2004. It was determined that MDOT did not pass MOE determination and is not eligible for toll credits in FFY 2005 – FFY 2008. It was determined that MDOT did not pass MOE determination in FFY 2008 by approximately $236,100.

**Observation 2:**

MDOT currently utilizes MOE Alternate 1 as its method to determine eligibility for toll credits. MDOT provided documents outlining FHWA approval of MDOT's use of MOE Alternate 1, dated November 9 2005, which states a requirement that MDOT use Alternate 1 in all future MOE determinations.

**Summary:**

Starting in 1995 MDOT initially utilized MOE Alternate 3 and reported their eligibility for toll credits to FHWA. In correspondence to FHWA dated August 9, 1995, MDOT requested approval to use MOE Alternate 3 to determine compliance with the maintenance of effort test for FFY 1995 and future fiscal years. In correspondence dated September 11, 1995, FHWA noted its acceptance of MDOT's use of Alternate 3 as its method for calculating MOE determination and approved its eligibility for toll credits.

In 2005, MDOT requested permission to change from MOE Alternate 3 to MOE Alternate 1 for calculation of its MOE determination in correspondence to FHWA dated October 3, 2005. MDOT also reported that it had met the MOE determination and was eligible for toll credits in FFY 1997 through FFY 2004. In correspondence to MDOT dated November 9, 2005, FHWA granted permission to MDOT to change from MOE Alternate 3 to MOE Alternate 1. In this correspondence, FHWA notified MDOT that this was a one-time switch and all future MOE determinations would be calculated based on MOE Alternate 1. FHWA also stated its approval of MDOT's eligibility for toll credits for FFY 1997 through FFY 2004.

**Impact:**

By switching from MOE Alternate 3 to MOE Alternate 1, MDOT determined it was better to eliminate the risk of having to replace toll credits earned with state funds in the event that it did not meet the non-Federal capital expenditures estimated under Alternate 3. The MOE determination under Alternate 1 looks at non-Federal capital expenditures already incurred; it does not require estimation and verification of future non-Federal capital expenditures. Since changing MOE calculations in 2005 is a one-time switch, according to FHWA correspondence MDOT cannot utilize a calculation method other than MOE Alternate 1 in the future.

**Observation 3:**

FHWA guidelines require that inputs used in the MOE determination remain consistent from each year's calculation to the next.[14] Currently, MDOT utilizes two inputs – State capital expenditures on public highways and County capital expenditures on public highways.

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[14] USDOT, FHW, Memorandum: Toll Credit for Non-Federal Share, Section 1111(c) of TEA-21, Implementing Guidance dated August 7, 1998 available at http://www.fhwa.dot.gov/tea21/tollcred.htm

**Summary:**

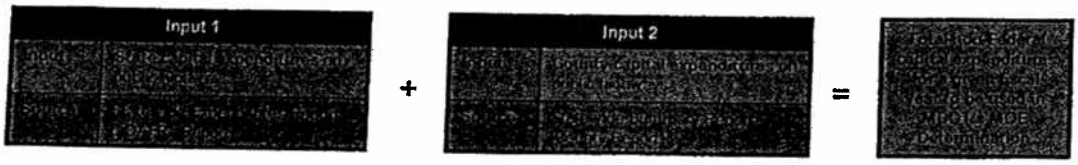
MDOT utilizes two reports to determine the inputs used in calculating the amount of non-Federal transportation capital expenditures for any given year:

- Statewide State Expenditures report

  The Statewide State Expenditures report is an annual report detailing all appropriations from the State. MDOT personnel review the Statewide State Expenditures report for appropriations used for transportation capital expenditures. MDOT personnel are able to identify such expenditures based on a coded appropriation number. MDOT personnel then tabulate all transportation capital expenditures for the fiscal year and determine the State's share of transportation capital expenditures for use in the MOE determination.

- Statewide County Expenditures Summary report

  The Statewide County Expenditures Summary Report is an annual report summarizing all county expenditures for roads for the fiscal year. The Statewide County Expenditures Summary Report is summarized by type of road expenditure, such as construction, heavy maintenance, maintenance and other. This report also details the amount of construction and heavy maintenance expenditures that are funded with federal dollars. MDOT personnel tabulate all county construction and heavy maintenance expenditures, and then deduct all county construction and heavy maintenance expenditures funded with federal dollars. The end result is the Counties' share of transportation capital expenditures for use in the MOE determination.




**Impact:**

MDOT utilizes state and county non-Federal capital expenditures on public highways in its MOE determination. We understand that FHWA guidelines only requires a state to utilize state non-Federal capital expenditures on public highways – states have the option to use county, city, local and private level non-Federal capital expenditures on public highways in their MOE determination.[15] Additionally, FHWA permits a state to use non-Federal capital expenditures on transit.[16]

In correspondence to MDOT, FHWA acknowledged that it would allow MDOT to include local and private-level qualifying capital expenditures in its MOE determination and toll credit calculation; however, MDOT would be required to adjust the previous four years' inputs accordingly. Therefore, if MDOT determined it

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[15] USDOT, FHW, Memorandum: Toll Credit for Non-Federal Share, Section 1111(c) of TEA-21, Implementing Guidance dated August 7, 1998 available at http://www.fhwa.dot.gov/tea21/tollcred.htm

[16] *Id.*

appropriate to include city level non-Federal highway capital expenditures for FFY 2009, MDOT would then have to include and account for city level non-Federal highway capital expenditures in FFYs 2008, 2007, 2006 and 2005 to help ensure consistency in the formula.

**Observation #4:**

We understand that FHWA guidelines allow for the inclusion of qualifying expenditures by toll authorities and local officials for transportation under Section 120 of Title 23[17]. Currently, we understand that neither the Detroit International Bridge Company (DIBC) nor Detroit Windsor LLC (DW) provides capital expenditures to MDOT for use in the MOE determination.

**Summary:**

We understand that FHWA guidelines allow for the inclusion of qualifying expenditures by toll authorities and local officials for public highways under Section 120 of Title 23[18] in the MOE determination. Additionally, if a state meets its MOE determination and is eligible for toll credits, Section 120 of Title 23 provides that "[a] State may use as a credit toward the non-Federal share requirement for any funds made available to carry out [Section 120 of Title 23] toll revenues that are generated and used by public, quasi-public, and *private agencies* to build, improve, or maintain highways, bridges, or tunnels that serve the public purpose of interstate commerce."[19] Thus, it is understood that a state has the option to use qualifying expenditures in both the MOE determination and the toll credit calculation (if it meets its MOE determination).

To date, it is understood that capital expenditures for the DIBC or DW have not been made available to MDOT. Following the Senate Detroit River International Crossing Committee meeting held on August 27, 2008, MDOT requested from the DIBC its audited financial statements showing the capital expenditures from 1992 forward in correspondence dated September 2, 2008. In that correspondence, MDOT notified that it would use the audited financial statements in the calculation of Toll Credits and Maintenance of Effort for the State of Michigan. We understand from MDOT management, that to date the DIBC has not responded to this correspondence.

A second request for audited financial statements was made to the DIBC by MDOT in correspondence dated December 11, 2008. In that correspondence, MDOT notified the DIBC that the financial statements may allow MDOT to maximize Michigan's federal toll credits by updating the Toll Credit Application and Maintenance of Effort calculation for the State of Michigan. We understand from MDOT management that to date the DIBC has not responded to this correspondence.

**Impact:**

In accordance with FHWA guidelines and correspondence, the audited financial statements from the DIBC or DW would permit MDOT to include qualifying capital expenditures in its MOE determination

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[17] USDOT, FHW, Memorandum: Toll Credit for Non-Federal Share, Section 1111(c) of TEA-21, Implementing Guidance dated August 7, 1998 available at http://www.fhwa.dot.gov/tea21/tollcred.htm

[18] *Id.*

[19] 23 U.S.C. § 120(j)(1)(A)

and/or toll credit calculation. Inclusion of these qualifying expenditures may allow MDOT to meet its MOE determination in one or all of FFY 2005 – FFY 2008. Moreover, inclusion of these qualifying expenditures potentially allows MDOT to update its Toll Credit Application and may allow for the State of Michigan to receive additional toll credits in FFY 1992 – FFY 2004. As the financial statements are not available for DIBC and/or DW (in so far as we are aware), the final impact of DIBC and DW capital expenditures is not quantifiable at this time.

File: FuelRevenueForecast16%w.floor

FUEL-TAX REVENUE FORECAST
For Estimating Value of Tax Basis and Rate Changes

**Alternative: 16% TAX ON WHOLESALE PRICE WITHIN 3-CENT WINDOW, WITH RISING FLOOR**
**Wholesale prices inflate to keep tax at calendar-year maximums for both fuels, up to 34-cent/gal. cap;**
**1-1/2-per-cent deduction repealed on gasoline tax.**

| Gasoline | Fiscal 2008 | Effective July 1, 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Gallons, thousands | 4,562,145 | 4,562,145 | 4,562,145 | 4,562,145 | 4,562,145 | 4,562,145 | 4,562,145 | 4,562,145 |
| Expected wholesale price | $2.60 | $1.50 | $1.53 | $1.72 | $1.91 | $2.09 | $2.29 | $2.37 |
| Expected pump price | $3.25 | $2.00 | $2.03 | $2.25 | $2.50 | $2.73 | $2.90 | $3.10 |
| Per-gallon tax | 0.18715 | 0.186 | 0.245 | 0.275 | 0.305 | 0.335 | 0.340 | 0.340 |
| Gasoline-tax revenue | 853,805,423 | 848,558,957 | 1,117,725,508 | 1,254,589,855 | 1,391,454,203 | 1,528,318,551 | 1,551,129,276 | 1,551,129,276 |
| Increase over 2008 | 0 | -5,246,467 | 263,920,084 | 400,784,432 | 537,648,780 | 674,513,128 | 697,323,852 | 697,323,852 |
| **Diesel Fuel** | | | | | | | | |
| Gallons, thousands | 720,391 | 720,391 | 720,391 | 720,391 | 720,391 | 720,391 | 720,391 | 720,391 |
| Expected wholesale price | $3.00 | $1.50 | $1.53 | $1.72 | $1.91 | $2.09 | $2.29 | $2.37 |
| Expected pump price | $3.75 | $2.00 | $2.03 | $2.25 | $2.50 | $2.73 | $2.90 | $3.10 |
| Per-gallon tax | 0.15 | 0.1675 | 0.245 | 0.275 | 0.305 | 0.335 | 0.340 | 0.340 |
| Diesel-tax revenue | 108,058,577 | 120,665,411 | 176,495,676 | 198,107,391 | 219,719,107 | 241,330,822 | 244,932,775 | 244,932,775 |
| Increase over 2008 | 0 | 12,606,834 | 68,437,099 | 90,048,814 | 111,660,530 | 133,272,245 | 136,874,198 | 136,874,198 |
| Total fuel-tax revenue | 961,864,001 | 969,224,368 | 1,294,221,184 | 1,452,697,247 | 1,611,173,310 | 1,769,649,373 | 1,796,062,051 | 1,796,062,051 |

Notes:
Prices and taxes are averages for calendar years.
Gallons estimated from actual FY 2008 revenues at .18715 and .15 per gallon. Propane not included.
Gallons held steady for comparison purposes.
Prices of gasoline and Diesel fuel are coincidentally the same in April, 2009.

File: simplified ad valorem forecast 1x10+4x20
Edition of April 27, 2009

**Estimate of Revenue from Four Revisions to Registration Taxes**
**This alternative:**

1. Increase in current ad-valorem and motorcycle tax rates 90% over 5 years, 1 x 10% and 4x 20%, exempt vehicles priced under $12,000, and motor homes.
2. Increase truck registration tax 21.6% over 4 years, 4 x 5% compounded.
2. Consolidate ad-valorem fee categories into $3,000 groups; base tax on upper value in each group.
3. Collect new ad-valorem registration tax immediately upon plate transfer to new vehicle.

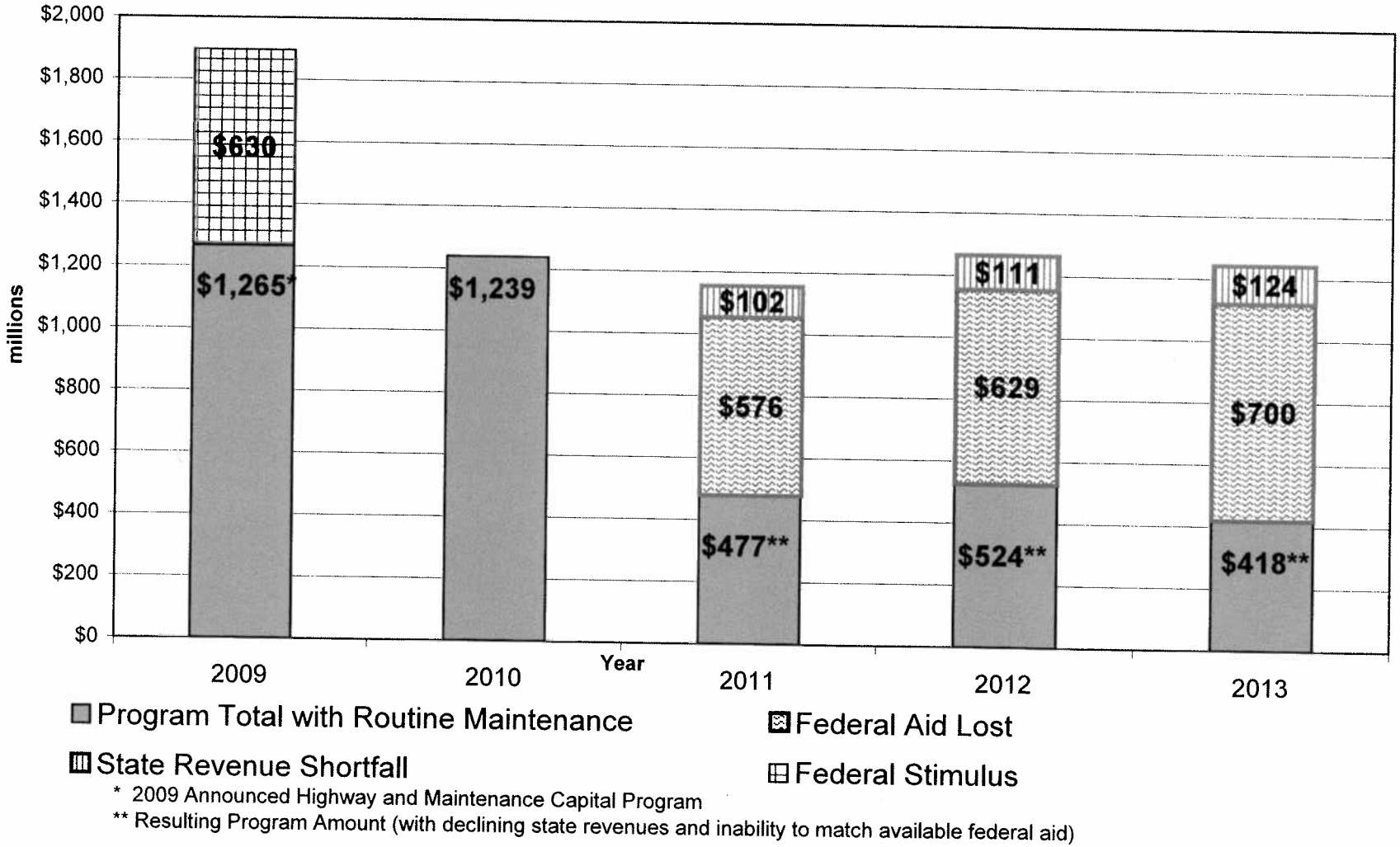
| | Fiscal 2008 Actual | Fiscal 2009 Expected | Fiscal 2010 Increased | Fiscal 2011 Increased | Fiscal 2012 Increased | Fiscal 2013 Increased | Fiscal 2014 Increased |
|---|---|---|---|---|---|---|---|
| Total registration-tax revenue | $855,035,864 | $855,035,864 | $991,515,431 | $1,136,575,850 | $1,282,200,831 | $1,428,418,601 | $1,562,187,801 |
| Ad-valorem part of revenue | 631,279,522 | 631,279,522 | 729,991,333 | 857,732,106 | 985,472,880 | 1,113,213,653 | 1,240,954,426 |
| Increment from 10 & 20% increases | 0 | 0 | 60,386,244 | 181,158,733 | 301,931,222 | 422,703,710 | 543,476,199 |
| Increment from $3,000 categories | 0 | 0 | 38,325,566 | 45,293,851 | 52,262,136 | 59,230,421 | 66,198,706 |
| Increment from commercial vehicles | 0 | 0 | 10,753,543 | 22,044,763 | 33,900,544 | 46,349,113 | 46,349,113 |
| Increment from motorcycles | 0 | 0 | 614,213 | 1,842,640 | 3,071,066 | 4,299,492 | 5,527,919 |
| Increment from plate-transfer date | 0 | 0 | 26,400,000 | 31,200,000 | 36,000,000 | 40,800,000 | 45,600,000 |
| Total increase over 2008 base: | 0 | 0 | 136,479,567 | 281,539,986 | 427,164,967 | 573,382,737 | 707,151,937 |
| | | | First increase takes effect Oct. 1, 2009 | | | | |

Notes:

| | | |
|---|---|---|
| Value in 2008 of increment from $3,000 categories: | $34,841,424 | |
| Value in 2008 of increment from advancing plate-transfer date: | $24,000,000 | |
| Value in 2008 of 263,928 motorcycle registrations | $6,142,132 | |
| Value in 2008 of 488,234 commercial registrations: | $215,070,855 | |
| Value in all past years of 1,745,784 permanent trailer registrations: | $192,462,386 | non-renewable |
| Value in 2009 of under-$12,000 ad valorem registrations: | $19,917,079 | |
| Value of motor-home registrations unknown, but estimated at: | $7,500,000 | |

# MDOT Highway and Maintenance Program

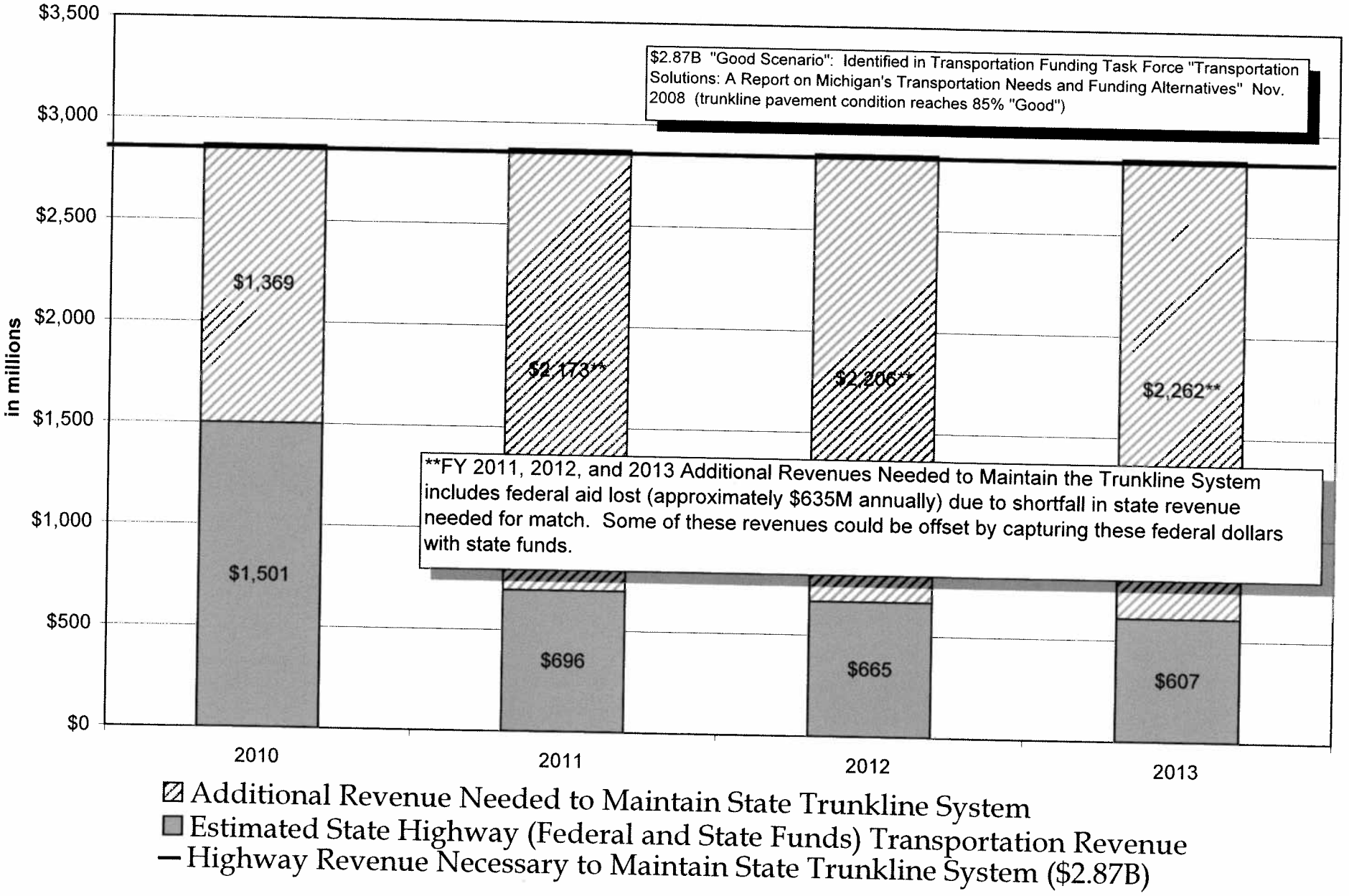
## State Revenue Shortfall and Federal-Aid Lost




* 2009 Announced Highway and Maintenance Capital Program

** Resulting Program Amount (with declining state revenues and inability to match available federal aid)

# MDOT Needs and Estimated Revenues



# Road Preservation Projects Removed from 2009-2013 Five Year Program

| region | county | route name | location | Type of work | Cost | senate # | senator | house # | representative |
|---|---|---|---|---|---|---|---|---|---|
| Bay | BAY | I-75 | SAGINAW COUNTY LINE TO SQUACONNING CREEK | Reconstruction | $29,300,000 | 31 | Barcia | 96 | Mayes |
| Bay | GENESEE | M-57 | BRENT RUN CREEK TO LINDEN ROAD | Resurface | $2,749,587 | 27 | Gleason | 48 | Hammel |
| Bay | BAY | M-13/M-84 | EUCLID TO LAFAYETTE BASCULE BRIDGE, BAY CITY | Reconstruction | $5,268,741 | 31 | Barcia | 96 | Mayes |
| Bay | HURON | M-53 | OUTER DRIVE TO M-142, BAD AXE | Reconstruction | $2,439,750 | 31 | Barcia | 84 | Brown |
| Grand | IONIA | M-21 | DETMERS ROAD EAST TO LINCOLN AVENUE | Resurface | $2,490,000 | 33 | Cropsey | 70 | Huckleberry |
| Grand | IONIA | M-66 | SOUTH OF GRE RR NORTH TO M-21 | Reconstruction | $2,629,000 | 33 | Cropsey | 70 | Huckleberry |
| Grand | OCEANA | US-31 | POLK RD TO THE N. BRANCH OF THE PENTWATER RIVER | Resurface | $7,814,000 | 34 | VanWoerkom | 100 | Hansen |
| Grand | MECOSTA | US-131 OLD | 19 MILE TO MECOSTA/OSCEOLA COUNTY LINE | Resurface | $2,397,000 | 35 | McManus | 102 | Booher |
| Grand | MONTCALM | US-131 SB | NORTH OF CANNONSVILLE ROAD TO SOUTH OF M-46 | Restoration and Rehabilitation | $9,523,000 | 33 | Cropsey | 70 | Huckleberry |
| Grand | MONTCALM | US-131 NB | NORTH OF CANNONSVILLE RD TO SOUTH OF M-46 | Restoration and Rehabilitation | $9,523,000 | 33 | Cropsey | 70 | Huckleberry |
| Grand | OTTAWA | US-31 | LAKEWOOD BLVD TO QUINCY ST | Reconstruction | $6,993,000 | 30 | Kuipers | 90 | Haveman |
| Metro | MACOMB | M-53 | 34 MILE ROAD TO NORTH MACOMB COUNTY LINE | Reconstruction | $19,800,000 | 11 | Sanborn | 36 | Lund |
| Metro | MACOMB | M-3 SB | CLINTON TO SANDPIPER | Resurface | $4,950,000 | 11 | Sanborn | 31 | Miller |
| Metro | MACOMB | M-3 NB | REMICK TO SANDPIPER | Resurface | $5,500,000 | 10,11 | Switalski, Sanborn | 31 | Miller |
| Metro | WAYNE | US-24 | VREELAND TO WEST ROAD | Major Widening | $23,000,000 | 7 | Patterson | 23 | Kennedy |
| Metro | MACOMB | M-97 | HAYES TO 14 MILE ROAD | Reconstruction | $29,926,000 | 9 | Olshove | 28 | Liss |
| Metro | MACOMB | I-94 | M-29 TO NORTH MACOMB COUNTY LINE | Resurface | $20,489,660 | 11 | Sanborn | 32 | Haase |
| Metro | OAKLAND | M-150 | 2ND STREET TO UNIVERSITY DRIVE | Reconstruction | $1,980,000 | 12 | Bishop | 45 | McMillin |
| Metro | WAYNE | US-12 | LIVERNOIS TO 28TH STREET | Reconstruction | $10,618,000 | 1,4 | Clarke, Thomas III | 4,12 | Young II,Tlaib |
| Metro | WAYNE | US-12 | 28TH STREET TO I-96 | Restoration and Rehabilitation | $7,500,000 | 1,4 | Clarke, Thomas III | 6,12 | Durhal Jr.,Tlaib |
| Metro | MACOMB | I-94 | STEPHENS TO MASONIC | Resurface | $16,200,000 | 9,10 | Olshove, Switalski | 24,42 | Roberts, Haugh |
| Metro | WAYNE | M-85 | SIBLEY TO GODDARD | Reconstruction | $47,000,000 | 7,8 | Patterson, Basham | 13 | Kandrevas |
| Metro | WAYNE | I-96 | MIDDLEBELT TO US-24 | Reconstruction | $44,000,000 | 6 | Anderson | 17,19 | Dillon, Walsh |
| North | ANTRIM | US-31 | FROM ELK RAPIDS TO CAMPBELL ROAD | Restoration and Rehabilitation | $3,137,719 | 37 | Allen | 105 | Elsenheimer |
| North | CHEBOYGAN | US-23 | FROM CHEBOYGAN EAST COUNTY LINE TO CORDWOOD | Restoration and Rehabilitation | $3,820,000 | 37 | Allen | 105 | Elsenheimer |
| North | MANISTEE | US-31 | SOUTH OF COATES HIGHWAY TO MAIDENS ROAD | Resurface | $5,390,306 | 35 | McManus | 101 | Scripps |
| North | EMMET | US-31 | PARADISE TR TO I-75 | Restoration and Rehabilitation | $4,122,790 | 37 | Allen | 105,107 | Elsenheimer, McDowell |
| North | GRAND TRAVERSE | US-31 | AT TOBECO CREEK | Reconstruction | $2,851,734 | 37 | Allen | 104 | Schmidt |
| North | IOSCO | US-23 | AUSABLE RIVER BRIDGE TO F-41 | Reconstruction | $6,325,000 | 36 | Stamas | 103 | Sheltrown |
| North | LAKE | US-10 | DEPOT STREET TO WEST OF SADDLER ROAD | Resurface | $658,268 | 35 | McManus | 100 | Hansen |
| North | WEXFORD | M-115 | 45 ROAD TO WEST OF 48 1/2 ROAD | Reconstruction | $2,412,265 | 35 | McManus | 102 | Booher |
| North | ANTRIM | M-88 | BELLAIRE TO CENTRAL LAKE | Restoration and Rehabilitation | $5,541,462 | 37 | Allen | 105 | Elsenheimer |
| North | IOSCO | M65 | TURTLE RD TO 1200' NORTH OF SHERMAN STREET | Restoration and Rehabilitation | $3,650,000 | 36 | Stamas | 103 | Sheltrown |
| Southwest | CALHOUN | I-94 WB | 23 MILE ROAD TO 29 MILE ROAD | Resurface | $9,138,381 | 19 | Vacant(Schauer) | 62 | Segal |
| Southwest | CALHOUN | M-60 | WITHIN THE VILLAGE OF HOMER | Resurface | $1,006,144 | 19 | Vacant(Schauer) | 62 | Segal |
| Southwest | ALLEGAN | M-89 | WEST OF US-131 EAST TO HICKS STREET IN PLAINWELL | Reconstruction | $6,380,000 | 24 | Birkholz | 80,88 | Schuilmaker, Genetski |
| Southwest | BARRY | M-43 | M-37/M-43 (STATE STREET) TO NORTH STREET | Restoration and Rehabilitation | $4,454,980 | 24 | Birkholz | 87 | Calley |
| Southwest | BARRY | M-37 | HANOVER STREET TO M-43 (STATE STREET) | Resurface | $914,038 | 24 | Birkholz | 87 | Calley |
| Southwest | BERRIEN | US-12 | RED ARROW HIGHWAY TO HODER ROAD | Restoration and Rehabilitation | $5,300,000 | 21 | Jelinek | 78 | Tyler |
| Southwest | CASS | US-12 | M-60 TO EDWARDSBURG | Resurface | $9,600,000 | 21 | Jelinek | 59 | Lori |
| Superior | DICKINSON | US-141 | US-141 FROM STATE LINE TO US-2 IN DICKINSON COUNTY | Restoration and Rehabilitation | $3,226,902 | 38 | Prusi | 108 | Nerat |
| Superior | HOUGHTON | M-26 | TAMARACK TO HUBBEL | Reconstruction | $3,288,870 | 38 | Prusi | 110 | Lahti |
| Superior | MACKINAC | US-2 | BORGSTROM ROAD TO HIAWATHA TRAIL | Resurface | $4,759,000 | 37 | Allen | 107 | McDowell |
| Superior | IRON | US-2 | IRON RIVER | Reconstruction | $1,852,000 | 38 | Prusi | 110 | Lahti |
| Superior | HOUGHTON | M-26 | LAURIUM | Reconstruction | $2,487,000 | 38 | Prusi | 110 | Lahti |
| Superior | IRON | M-189 | NORTH OF HIAWATHA ROAD TO US-2 | Reconstruction | $2,831,000 | 38 | Prusi | 110 | Lahti |
| Superior | MACKINAC | US-2 | M-117 TO NAUBINWAY | Reconstruction | $5,565,000 | 37 | Allen | 107 | McDowell |
| Superior | MENOMINEE | US-41 | COUNTY ROAD G-12 TO BAGLEY | Restoration and Rehabilitation | $4,214,698 | 38 | Prusi | 108 | Nerat |
| University | INGHAM | M-43 | ECL WILLIAMSTON TO EAST JCT OF M-52 | Resurface | $3,178,257 | 23 | Whitmer | 67 | Byrum |
| University | JACKSON | I-94BL (MICH | M-60 EASTERLY TO WASHINGTON/LOUIS GLICK | Resurface | $5,949,648 | 19 | Vacant(Schauer) | 64,65 | Griffin, Simpson |
| University | LIVINGSTON | US-23 | SILVER LAKE ROAD TO CSX RAILROAD | Resurface | $16,020,000 | 22 | Garcia | 66 | Rogers |
| University | MONROE | US-24 | US-24 FROM STEWART RD TO LASALLE RD | Resurface | $4,721,602 | 17 | Richardville | 56 | Ebli |
| University | SHIAWASSEE | M-52 | M-52, MORRICE TO M-21 | Reconstruction | $6,473,976 | 22 | Garcia | 85 | Ball |
| University | WASHTENAW | M-52 | AUSTIN TO DUTCH | Reconstruction | $8,060,633 | 17 | Richardville | 52 | Byrnes |
| University | LENAWEE | M-50 | RIDGE HWY TO THE EVL OF BRITTON, LENAWEE COUNTY | Resurface | $3,585,776 | 16 | Brown | 57 | Spade |
| University | SHIAWASSEE | M-52 | M-21, CHESTNUT TO M-52, M-52, M-21 TO ARDELEAN | Resurface | $6,521,128 | 22 | Garcia | 85 | Ball |
| University | WASHTENAW | M-14 | M-14 FROM EAST OF EARHART ROAD TO WASHTENAW COUNTY | Resurface | $23,547,814 | 18 | Brater | 52,54 | Byrnes, Smith |
| University | JACKSON | US-127 | BOARDMAN ROAD TO HENRY ROAD | Restoration and Rehabilitation | $17,031,140 | 19 | Vacant(Schauer) | 65 | Simpson |
| University | MONROE | M-125 | M-125 FROM 440' N OF JONES TO US-24 | Resurface | $13,200,000 | 17 | Richardville | 56 | Ebli |

# Bridge Preservation Projects Removed from 2009-2013 Five Year Program

| Region | county | Route | Location | Type of Work | Cost | Start Year | Senate # | Senate Name | | House # | Representative |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 Bay | SAGINAW | Bridge - Replacement and RehabilitationM-13 | M-13 over NO NAME DRAIN | Bridge Replacement | $755,563 | 2011 | 32 | Kahn | A | 95 | Coulouris |
| 2 Bay | GENESEE | Bridge - Replacement and RehabilitationI-75 | I-75 US-23 over FLINT RIVER | Overlay - Deep | $2,296,523 | 2011 | 27 | Gleason | A | 49 | Gonzales |
| 3 Bay | GENESEE | Bridge - Replacement and RehabilitationI-75 | ARLENE DRIVE over I-75 | Overlay - Deep | $394,553 | 2011 | 27 | Gleason | A | 49 | Gonzales |
| 4 Bay | GENESEE | Bridge - Replacement and RehabilitationI-75 | I-75 SB over FLUSHING ROAD | Overlay - Shallow | $482,136 | 2011 | 27 | Gleason | A | 49 | Gonzales |
| 5 Bay | GENESEE | Bridge - Replacement and RehabilitationI-75 | I-75 NB over FLUSHING ROAD | Overlay - Shallow | $3,134,365 | 2011 | 27 | Gleason | A | 49 | Gonzales |
| 6 Bay | GRATIOT | Bridge - Replacement and RehabilitationM-57 | M-57 over BEAR CREEK | Bridge Replacement | $807,809 | 2011 | 32 | Kahn | A | 99 | Opsommer |
| 7 Bay | BAY | Bridge - Replacement and RehabilitationM-13 | M-13 over Johnsons Creek | Bridge Replacement | $1,425,600 | 2012 | 31 | Barcia | A | 97 | Moore |
| 8 Bay | LAPEER | Bridge - Replacement and RehabilitationM-24 | M-24 over Farmers Creek | Culvert Replacement | $1,396,782 | 2012 | 25 | Gilbert II | A | 82 | Daley |
| 9 Bay | LAPEER | Bridge - Replacement and RehabilitationM-24 | M-24 over CR RAILROAD (ABANDONED) | Bridge Replacement | $1,163,997 | 2012 | 25 | Gilbert II | A | 82 | Daley |
| 10 Bay | HURON | Bridge - Replacement and RehabilitationM-142 | M-142 over NETTLE RUN | Culvert Replacement | $636,263 | 2012 | 31 | Barcia | A | 84 | Daley |
| 11 Bay | TUSCOLA | Bridge - Replacement and RehabilitationM-46 | M-25 over HARBOR BEACH CREEK | Bridge Replacement | $372,753 | 2012 | 31 | Barcia | A | 84 | Brown |
| 12 Bay | TUSCOLA | Bridge - Replacement and RehabilitationM-46 | M-46 over SUCKER CREEK | Bridge Replacement | $415,801 | 2012 | 31 | Barcia | A | 84 | Brown |
| 13 Bay | HURON | Bridge - Replacement and RehabilitationM-142 | M-142 over PIGEON RIVER | Bridge Replacement | $1,559,029 | 2012 | 31 | Barcia | A | 84 | Brown |
| 14 Bay | LAPEER | Bridge - Replacement and RehabilitationM-24 | M-24 over PLUM CREEK | Bridge Replacement | $664,460 | 2012 | 25 | Gilbert II | A | 82 | Daley |
| 15 Bay | GENESEE | Bridge - Replacement and RehabilitationI-69 | I-69 over M-54 (DORT HIGHWAY) | Substructure Repair | $785,421 | 2013 | 27 | Gleason | A | 49 | Gonzales |
| 16 Grand | KENT | Bridge - Replacement and RehabilitationUS-131 | 36TH STREET over US-131 | Bridge Replacement | $4,502,000 | 2011 | 28 | Jansen | A | 77 | Green |
| 17 Grand | MUSKEGON | Bridge - Replacement and RehabilitationUS-31BR | US-31 BR over CSX RAILROAD (ABANDONDED) | Superstructure Replacement | $430,000 | 2011 | 34 | VanWoerkem | A | 91 | Valentine |
| 18 Grand | KENT | Bridge - Replacement and RehabilitationUS-131 | 32ND STREET over US-131 | Miscellaneous Replace | $202,000 | 2011 | 28 | Jansen | A | 77 | Green |
| 19 Grand | KENT | Bridge - Replacement and RehabilitationUS-131 | US-131 over CSX RAILROAD | Overlay - Deep | $2,938,000 | 2012 | 29 | Hardiman | A | 76 | Schmidt |
| 20 Grand | MONTCALM | Bridge - Replacement and RehabilitationUS-131 | US-131 NB over TAMARACK CREEK | Deck Replacement | $1,260,000 | 2012 | 33 | Cropsey | A | 70 | Huckleberry |
| 21 Grand | MUSKEGON | Bridge - Replacement and RehabilitationUS-BR-31 | US-31 BR EB over SOUTH BRANCH MUSKEGON RIVER | Overlay - Deep | $847,156 | 2012 | 34 | VanWoerkem | A | 92 | Bennett |
| 22 Grand | MUSKEGON | Bridge - Replacement and RehabilitationUS-BR-31 | US-31 BR EB over MUSKEGON RIVER | Bridge Replacement | $847,156 | 2012 | 34 | VanWoerkem | A | 92 | Bennett |
| 23 Grand | IONIA | Bridge - Replacement and RehabilitationUS-BR-31 | I-96 EB over CSX RAILROAD (ABANDONED) | Bridge Removal | $392,640 | 2013 | 33 | Cropsey | A | 87 | Calley |
| 24 Grand | IONIA | Bridge - Replacement and RehabilitationI-96 | I-96 WB over CSX RAILROAD (ABANDONED) | Bridge Removal | $392,640 | 2013 | 33 | Cropsey | A | 87 | Calley |
| 25 Grand | IONIA | Bridge - Replacement and RehabilitationI-96 | I-96 over PORTLAND TRAIL | New Strc-Extg Rte | $1,274,270 | 2013 | 33 | Cropsey | A | 87 | Calley |
| 26 Grand | KENT | Bridge - Replacement and RehabilitationI-96 | M-21 over GTW RAILROAD | Superstructure Replacement | $2,512,000 | 2013 | 28 | Jansen | A | 86 | Hildenbrand |
| 27 Metro | MACOMB | Bridge - Replacement and RehabilitationM-21 | M-3 SB over CLINTON RIVER | Bridge Replacement | $3,690,000 | 2011 | 11 | Sanborn | A | 31 | Miller |
| 28 Metro | MACOMB | Bridge - Replacement and RehabilitationM-3 | M-3 NB over CLINTON RIVER | Bridge Replacement | $3,265,000 | 2011 | 11 | Sanborn | A | 31 | Miller |
| 29 Metro | OAKLAND | Bridge - Replacement and RehabilitationM-3 | I-96 over KENT LAKE ROAD | Deck Replacement | $2,734,366 | 2011 | 15 | Cassis | A | 38 | Crowford |
| 30 Metro | OAKLAND | Bridge - Replacement and RehabilitationI-96 | I-96 over HURON RIVER | Superstructure Repair | $345,000 | 2011 | 15 | Cassis | A | 38 | Crowford |
| 31 Metro | OAKLAND | Bridge - Replacement and RehabilitationI-96 | I-96EB over MILFORD ROAD | Widen-Maint Lanes | $1,024,204 | 2011 | 15 | Cassis | A | 38 | Crowford |
| 32 Metro | WAYNE | Bridge - Replacement and RehabilitationI-96 | I-96WB over MILFORD ROAD | Widen-Maint Lanes | $918,717 | 2011 | 15 | Cassis | A | 38 | Crowford |
| 33 Metro | WAYNE | Bridge - Replacement and RehabilitationUS-24 | US-24 over SMITH CREEK | Culvert Replacement | $521,150 | 2011 | 7 | Patterson | A | 23 | Kennedy |
| 34 Metro | WAYNE | Bridge - Replacement and RehabilitationI-275 | WARREN ROAD over I-275 | Overlay - Shallow | $1,100,000 | 2012 | 7 | Patterson | A | 20 | Corriveau |
| 35 Metro | WAYNE | Bridge - Replacement and RehabilitationI-275 | PLYMOUTH ROAD over I-275 | Deck Replacement | $1,279,000 | 2012 | 7 | Patterson | A | 20 | Corriveau |
| 36 Metro | WAYNE | Bridge - Replacement and RehabilitationI-275 | ANN ARBOR TRAIL over I-275 | Overlay - Deep | $890,031 | 2012 | 7 | Patterson | A | 21 | Slavens |
| 37 Metro | WAYNE | Bridge - Replacement and RehabilitationI-275 | I-275 SB over LOWER ROUGE RIVER | Overlay - Deep | $624,185 | 2012 | 7 | Patterson | A | 21 | Slavens |
| 38 Metro | WAYNE | Bridge - Replacement and RehabilitationI-275 | I-275 NB over LOWER ROUGE RIVER | Overlay - Deep | $558,256 | 2012 | 7 | Patterson | A | 21 | Slavens |
| 39 Metro | WAYNE | Bridge - Replacement and RehabilitationI-275 | I-275 RAMP over MCCLAUGHREY DRAIN | Overlay - Deep | $69,749 | 2012 | 7 | Patterson | A | 21 | Slavens |
| 40 Metro | WAYNE | Bridge - Replacement and RehabilitationI-275 | I-275 RAMP over MCCLAUGHERY DRAIN | Overlay - Deep | $95,689 | 2012 | 7 | Patterson | A | 21 | Slavens |
| 41 Metro | WAYNE | Bridge - Replacement and RehabilitationI-275 | TYLER ROAD over I-275 | Overlay - Deep | $340,119 | 2012 | 7 | Patterson | A | 21 | Slavens |
| 42 Metro | OAKLAND | Bridge - Replacement and RehabilitationTROWBRIDGE ROAD | TROWBRIDGE ROAD over GTW RAILROAD | Superstructure Repair | $300,000 | 2012 | 7 | Patterson | A | 21 | Slavens |
| 43 North | WEXFORD | Bridge - Replacement and RehabilitationM-37 | M-37 over PINE RIVER | Deck Replacement | $2,311,328 | 2011 | 35 | McManus | A | 102 | Booher |
| 44 North | EMMET | Bridge - Replacement and RehabilitationM-68 | M-68 over CROOKED RIVER | Deck Replacement | $1,495,250 | 2012 | 37 | Allen | A | 107 | McDowell |
| 45 Southwest | VAN BUREN | Bridge - Replacement and RehabilitationBLUE STAR HIGHWAY | BLUE STAR HIGHWAY over BLACK RIVER | Bridge Replacement | $4,380,000 | 2011 | 21 | Jelinek | A | 80 | Schuitmaker |
| 46 Southwest | BRANCH | Bridge - Replacement and RehabilitationUS-12 | US-12 over PRAIRIE RIVER | Bridge Replacement | $1,144,912 | 2011 | 16 | Brown | A | 58 | Kurtz |
| 47 Southwest | CALHOUN | Bridge - Replacement and RehabilitationI-94 | 22 1/2 MILE ROAD over I-94 | Overlay - Shallow | $263,135 | 2011 | 19 | Vacant(Schauer) | A | 62 | Segal |
| 48 Southwest | CALHOUN | Bridge - Replacement and RehabilitationI-94 | M-199 (26 MILE ROAD) over I-94 | Overlay - Shallow | $275,315 | 2011 | 19 | Vacant(Schauer) | A | 62 | Segal |
| 49 Southwest | BRANCH | Bridge - Replacement and RehabilitationM-86 | M-86 over1 BATAVIA #1 & #7 DRAIN | Culvert Replacement | $1,075,351 | 2011 | 16 | Brown | A | 58 | Kurtz |
| 50 Southwest | BERRIEN | Bridge - Replacement and RehabilitationM-86 | US-31 BR over DOWAGIAC RIVER | Superstructure Repair | $1,835,911 | 2012 | 21 | Jelinek | A | 78 | Tyler |
| 51 Southwest | CALHOUN | Bridge - Replacement and RehabilitationUS-31 BR | M-66 over WANONDAGA CREEK | Bridge Replacement | $1,227,243 | 2012 | 19 | Vacant(Schauer) | A | 63 | Bolger |
| 52 Superior | LUCE | Bridge - Replacement and RehabilitationM-123 | M-123 over MURPHY CREEK | Culvert Replacement | $805,000 | 2011 | 38 | Prusi | A | 109 | Lindberg |
| 53 Superior | MACKINAC | Bridge - Replacement and RehabilitationM-123 | I-75 over HOBAN CREEK | Culvert Replacement | $687,695 | 2012 | 37 | Allen | A | 107 | McDowell |
| 54 University | MONROE | Bridge - Replacement and RehabilitationI-75 | US-24 over LITTLE SANDY CREEK | Culvert Replacement | $1,140,746 | 2011 | 17 | Richardville | A | 56 | Ebli |
| 55 University | WASHTENAW | Bridge - Replacement and RehabilitationUS-24 | M-52 over RAISIN RIVER | Deck Replacement | $358,800 | 2011 | 17 | Richardville | A | 52 | Byrnes |
| 59 University | LIVINGSTON | Bridge - Replacement and RehabilitationM-52 | US-23 NB over SILVER LAKE ROAD | Overlay - Deep | $349,359 | 2011 | 22 | Garcia | A | 66 | Rogers |
| 60 University | LIVINGSTON | Bridge - Replacement and RehabilitationUS-23 | LEE ROAD over US-23 | Superstructure Repair | $410,800 | 2011 | 22 | Garcia | A | 66 | Rogers |
| 61 University | SHIAWASSEE | Bridge - Replacement and RehabilitationUS-23 | STATE ROAD over I-69 | Overlay - Deep | $888,493 | 2011 | 22 | Garcia | A | 66 | Rogers |
| 62 University | SHIAWASSEE | Bridge - Replacement and RehabilitationI-69 | I-69 EB over LOOKING GLASS RIVER | Deck Replacement | $190,727 | 2011 | 22 | Garcia | A | 85 | Ball |
| 63 University | SHIAWASSEE | Bridge - Replacement and RehabilitationI-69 | I-69 WB over LOOKIN GLASS RIVER | Deck Replacement | $183,492 | 2011 | 22 | Garcia | A | 85 | Ball |
| 64 University | SHIAWASSEE | Bridge - Replacement and RehabilitationI-69 | MORRICE ROAD over I-69 | Overlay - Deep | $540,572 | 2011 | 22 | Garcia | A | 85 | Ball |
| 65 University | SHIAWASSEE | Bridge - Replacement and RehabilitationI-69 | DURAND ROAD over I-69 | Overlay - Deep | $795,206 | 2011 | 22 | Garcia | A | 85 | Ball |
| 66 University | LIVINGSTON | Bridge - Replacement and RehabilitationI-69 | US-23 SB over HYNE ROAD | Overlay - Deep | $576,988 | 2011 | 22 | Garcia | A | 66 | Rogers |
| 67 University | LIVINGSTON | Bridge - Replacement and RehabilitationUS-23 | US-23 NB over HYNE ROAD | Overlay - Deep | $634,302 | 2011 | 22 | Garcia | A | 66 | Rogers |
| 68 University | JACKSON | Bridge - Replacement and RehabilitationUS-23 | M-99 over SOUTH BRANCH OF RICE CREEK | Culvert Replacement | $922,773 | 2012 | 19 | Vacant(Schauer) | A | 64 | Griffin |
| | | Bridge - Replacement and RehabilitationM-99 | | | | | | | | | |